Contra Costa County Employees' Retirement Association

Actuarial Valuation and Review as of December 31, 2003

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# \* SEGAL

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August 30, 2004

Board of Retirement Contra Costa County Employees' Retirement Association 1335 Willow Way, Suite 221 Concord, CA 94520

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of December 31, 2003. The report summarizes the actuarial data used in the valuation, establishes the funding requirements for the fiscal year beginning July 1, 2005 and analyzes the preceding year's experience.

The census information on which our calculations were based was prepared by the CCCERA and the financial information was provided by the Association's staff. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of John Monroe, MAAA, Enrolled Actuary.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board of Retirement are reasonably related to the experience of and the expectations for the Plan.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

THE SEGAL COMPANY By:

Paul A

Paul Angelo, FSA, MAAA, FCA Vice President and Actuary

John Monroe, MAAA Associate Actuary

DZY/hy



# SECTION 1

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#### Purpose

This report has been prepared by The Segal Company to present a valuation of the Contra Costa County Employees' Retirement Association (CCCERA) as of December 31, 2003. The valuation was performed to determine contribution rates that, in combination with current assets, are sufficient to provide the prescribed benefits. The contribution rate requirements presented in this report are based on:

- > The benefit provisions of the Retirement Association, as administered by the Board;
- The characteristics of covered active members, vested terminated members, and retired members and beneficiaries as of December 31, 2003, provided by the Association's staff;
- > The assets of the Plan as of December 31, 2003, provided by the Association's staff;
- > Economic assumptions regarding future salary increases and investment earnings; and
- > Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

#### Significant Issues in Valuation Year

Contra Costa County Employees' Retirement Association's basic financial goal is to establish contributions which fully fund the system's liabilities, and which, as a percentage of payroll, remain as level as possible for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

The actuarial valuation required for the Contra Costa County Employees' Retirement Association has been prepared as of December 31, 2003 by The Segal Company. In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to evaluate the Association's assets, liabilities and future contribution requirements. Our calculations are based upon member data and financial information provided to us by the Association's staff. This information has not been audited by us, but it has been reviewed and found to be consistent, both internally and with prior years' information.

The contribution requirements are determined as a percentage of payroll. The Association's employer rates provide for both normal cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. The Association's unfunded actuarial accrued liability is being amortized over a decreasing 20-year period starting with the December 31, 2002 valuation. There are 19 years left in the amortization period as of December 31, 2003.

The rates calculated in this report may be adopted by the Board for July 1, 2005 through June 30, 2006.

The ratio of actuarial value of assets to actuarial accrued liabilities decreased from 89.6% to 85.5% as a result of this valuation.

#### **Experience Analysis**

The results of this study are based on actuarial assumptions and procedures adopted by the Board pursuant to our experience analysis as of December 31, 2003. The impact of these assumptions on CCCERA's liabilities and contribution rates was significant. Charts 15 and 17 in Section 2 provide the impacts on aggregate employer and member contribution rates, respectively. Chart 16 provides a breakdown of the separate impacts of the more significant items. The total increase in the employer contribution rate was 4.54% of compensation. Exhibit I in Section 3 provides the aggregate impact of the assumption changes on the actuarial accrued liability (approximately \$123 million).

#### **Benefit Changes**

The following is a list of benefit Plan changes since the December 31, 2003 valuation:

Central Contra Costa Sanitary District, Ironhouse Sanitary District, and Rodeo-Hercules Fire Protection District (General members) adopted enhanced General Tier 1 benefits for their members.

#### **Impact of Future Experience on Contribution Rates**

Future contribution requirements may differ from those determined in the valuation because of:

- 1) difference between actual experience and anticipated experience;
- 2) changes in actuarial assumptions or methods;
- 3) changes in statutory provisions; and
- 4) difference between the contribution rates determined by the valuation and those adopted by the Board.

As indicated on page 5 of this valuation report, the total unrecognized investment loss as of December 31, 2003 is over \$237 million. This investment loss will be recognized in the determination of the actuarial value of asset for funding purposes in the next few years. It should be understood that earning the assumed rate of investment return of 7.90% per year on a **market value** basis will result in investment losses on the actuarial value of assets in the next few years, due to the existence of the current unrecognized investment losses. Therefore, if the actual market return is equal to the assumed 7.90% rate and all other actuarial assumptions are fully realized, we would anticipate a significant increase in the scheduled cost requirements in each of the next few years.

	Decembe	r 31, 2003	Decembe	r 31, 2002
Employer Contribution Rates (County and District combined)*:		Estimated		Estimated
	Total Rate	Annual Amount	Total Rate	Annual Amount
General Tier 1 Non-enhanced	28.59%	\$3,830,000	24.85%	\$3,329,000
General Tier I Enhanced	27.09%	24,789,000	21.00%	19,219,000
General Tier 2	18.22%	3,228,000	14.06%	2,492,000
General Tier 3 Non-enhanced	21.42%	3,746,000	6.76%	2,930,000
General Tier 3 Enhanced	22,51%	72,523,000	17.90%	57,693,000
Safety Non-enhanced	37.10%	1,668,000	32.38%	1,456,000
Safety Enhanced	49,57%	66,140,000	38.45%	51,301,000
All Employers combined	29.31%	\$175,924,000	23.06%	\$138,420,000
Average Member Contribution Rates*:		Estimated		Estimated
	Total Rate	Annual Amount	Total Rate	Annual Amount
General Tier 1 Non-enhanced	7.64%	\$1,024,000	6.65%	\$891,000
General Tier 1 Enhanced	6.57%	6,012,000	5.20%	4,758,000
General Tier 2	3.12%	553,000	2.83%	502,000
General Tier 3 Non-enhanced	6.60%	1,154,000	6.00%	1,049,000
General Tier 3 Enhanced	6.38%	20,559,000	5.86%	18,883,000
Safety Non-enhanced	9.87%	444,000	8.56%	385,000
Safety Enhanced	11.15%	14,877,000	9.63%	12,849,000
All Categories Combined	7.43%	\$44,623,000	6.55%	\$39,317,000
Refundability Factors	Enhanced	Non-enhanced	Enhanced	Non-enhanced
General Tier 1	.9974	.9962	.9975	.9971
General Tier 2	N/A	.9879	N/A	.9868
General Tier 3	.9956	.9999	.9952	.9999
Safety	.9952	.9974	.9972	.9961
Funded Status:			1 1020	
Actuarial accrued liability	\$4,141,389,738		\$3,677,624,147	
Valuation value of assets	\$3,538,721,957		\$3,296,736,290**	
Funded percentage	85.5%		89.6%	
UAAL	\$602,667,781		\$380,887,857	
Key Assumptions:				
Interest rate	7.90%		8.00%	
Inflation rate	4.00%		4,25%	

\* Based on December 31, 2003 projected annual compensation.

\*\* Includes proceeds of \$319,094,714 from Pension Obligation Bonds issued by the County in May 2003.

	December 31, 2003	December 31, 2002	Percentage Change
Active Members:		······································	***************************************
Number of members	9,476	9,611	-1.4%
Average age	45.1	44.9	N/A
Average service	9.6	9.7	N/A
Projected total compensation	\$600,273,908	\$580,415,000	3.4%
Average projected compensation	\$63,347	\$60,391	4.9%
Retired Member and Beneficiaries:			
Number of members:			
Service retired	3,998	3,781	5.7%
Disability retired	896	835	7.3%
Beneficiaries	1,042	1,003	3.9%
Total	5,936	5,619	5.6%
Average age	68.7	69.0	N/A
Average Monthly Benefit	\$2,453	\$2,195	11.8%
Vested Terminated Members:			
Number of terminated vested members	1,248	1,067	17.0%
Average age	45.8	46.4	N/A
Summary of Financial Data:			
Market value of assets	\$3,313,494,947	\$2,402,057,627	37.9%
Return on market value of assets	23.44%	-10.28%	N/A
Actuarial value of assets	\$3,550,800,728	\$3,155,471,516	12.5%
Return on actuarial value of assets	2.52%	8.53%	N/A
Valuation assets	\$3,538,721,957	\$2,977.641,567	18.8%
Return on valuation assets	7.41%	3.05%	N/A

#### A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographics of covered members, including active members, vested terminated members, retired members and beneficiaries. This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, C and D.

#### A historical perspective of **CH**/ how the member

how the member population has changed over the past four valuations can be seen in this chart.

#### CHART 1

Member Population: 2000 – 2003

Year Ended December 31	Active Members	Vested Terminated Members <sup>(1)</sup>	Retired Members and Beneficiaries <sup>(2)</sup>	Ratio of Non-Actives to Actives
2000	8,884	877	5,245	0.69
2001	9,229	955	5,487	0.70
2002	9,611	1,067	5,619	0.70
2003	9,476	1,248	5,936	0.76

(1) Includes terminated members due a refund of member contributions.

(2) The December 31, 2001 and December 31, 2000 numbers have been adjusted to reflect a single record for members receiving benefit payments from multiple tiers.

#### **Active Members**

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there are 9,476 active members with an average age of 45.1, average years of service of 9.6 years and average compensation of \$63,347. The 9,611 active members in the prior valuation had an average age of 44.9, average service of 9.7 years and average compensation of \$60,391.

Among the active members, there were none with unknown age or service information.

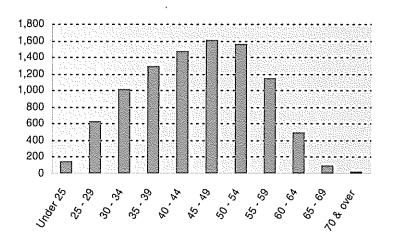
#### **Inactive Members**

In this year's valuation, there were 1,248 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their employee contributions versus 1,067 in the prior valuation.

# These graphs show a distribution of active members by age and by years of service.

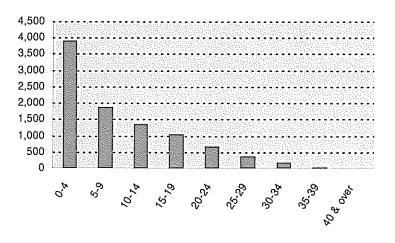
#### CHART 2

Distribution of Active Members by Age as of December 31, 2003



#### CHART 3

Distribution of Active Members by Years of Service as of December 31, 2003



#### **Retired Members and Beneficiaries**

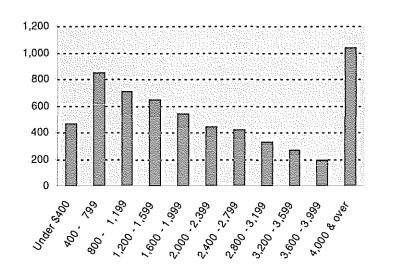
As of December 31, 2003, 4,894 retired members and 1,042 beneficiaries were receiving total monthly benefits of \$14,561,418. For comparison, in the previous valuation, there were 4,616 retired members and 1,003 beneficiaries receiving monthly benefits of \$12,327,165.

#### These graphs show a distribution of the current retired members and beneficiaries based on their monthly amount and age, by type of pension.

Beneficiaries
 Disability
 Service

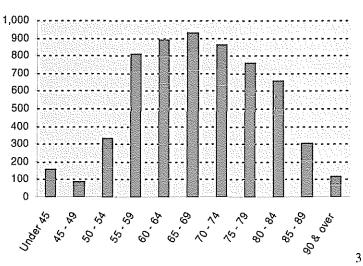
### CHART 4

Distribution of Retired Members and Beneficiaries by Type and by Monthly Amount as of December 31, 2003



#### CHART 5

Distribution of Retired Members and Beneficiaries by Type and by Age as of December 31, 2003

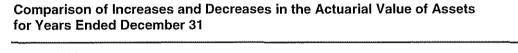


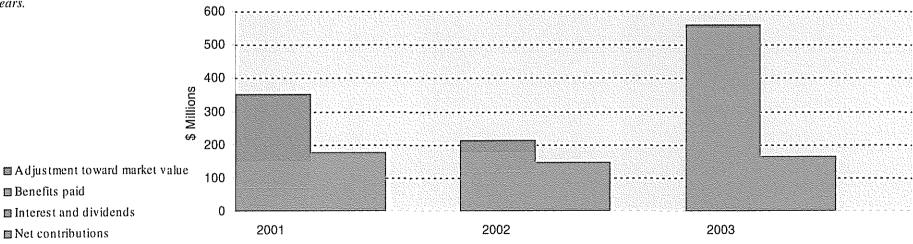
#### **B.** FINANCIAL INFORMATION

Retirement plan funding anticipates that, over the long term, both contributions and net investment earnings (less investment and administrative fees) will be needed to cover benefit payments. Retirement plan assets change as a result of the net impact of these income and expense components. The adjustment toward market value shown in the chart is the "non-cash" earnings on investment implicitly included in the Actuarial Value of Assets. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits E and F.

# CHART 6

The chart depicts the components of changes in the actuarial value of assets over the last three years.







The chart shows the determination of the actuarial value of assets as of the valuation date.

CHART 7 Determination of Actuarial Value of Assets for Year Ended December 31, 2003

Six Month Period		Total Actual Market	Expected Market	Investment	Deferred	Deferred
From	То	Return (net)	Return (net)	Gain (Loss)	Factor	Return
		·				
07/1999	12/1999	\$192,735,665	\$115,628,005	\$77,107,660	0.1	\$7,710,766
01/2000	06/2000	31,440,418	122,791,933	(91,351,515)	0.2	(18,270,303)
07/2000	12/2000	(20,384,847)	122,840,407	(143,225,254)	0.3	(42,967,576)
01/2001	06/2001	(88,016,491)	120,375,241	(208,391,732)	0.4	(83,356,693)
07/2001	12/2001	(68,835,640)	118,433,855	(187,269,495)	0.5	(93,634,748)
01/2002	06/2002	(118,079,827)	114,304,079	(232,383,906)	0.6	(139,430,344)
07/2002	12/2002	(161,138,970)	107,923,673	(269,062,644)	0.7	(188,343,851)
01/2003	06/2003	232,701,151	105,496,508	127,204,643	0.8	101,763,714
07/2003	12/2003	366,693,598	123,112,205	243,581,393	0.9	219,223,254
1. Total d	1. Total deferred return					
2. Market	2. Market Value of Assets					3,313,494,947
3. Actuar	3. Actuarial Value of Assets (Item 2 - Item 1)					3,550,800,728
4. Non-va	luation rese	rves and designation	ns:			
a. Post	a. Post Retirement Death Benefit					
b. Statu	b. Statutory Contingency					
c. Additional One Percent Contingency						0
d. Unrestricted Designation					0	
	e. Total					\$12.078,771
-						
5. Valuation Value of Assets (Item 3 - Item 4e)					\$3,538,721,957	

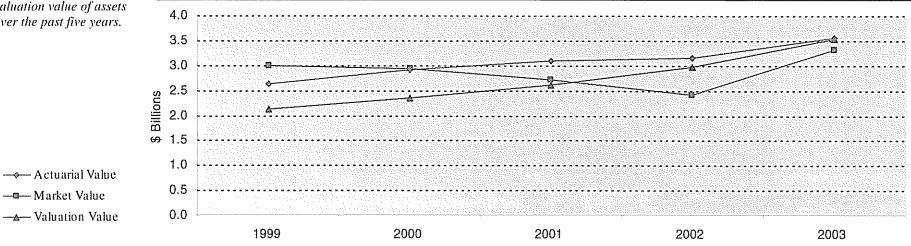
The market value, actuarial value and valuation value of assets are representations of the Plan's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets, but with less volatility. The valuation value of assets is the actuarial value, excluding any nonvaluation reserves.

The valuation value of assets is significant because the Plan's liabilities are compared to this measure of its assets to determine what portion, if any, remains unfunded. Amortization of the unfunded liability is an important element in determining the contribution requirement.

#### CHART 8

This chart shows the change in the relative values of market value, actuarial value and valuation value of assets over the past five years.

Relative values of Market Value, Actuarial Value and Valuation Value of Assets for Years Ended December 31, 1999 – 2003



#### C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term

development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total loss is \$81.2 million, \$19.4 million loss from investments and \$61.8 million loss from all other sources. The net experience variation from individual sources other than investments was 1.7% of the beginning of year actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience during the past vear.

#### CHART 9

Actuarial Experience for Year Ended December 31, 2003

١.	Net gain/(loss) from investments*	\$(19,435,532)
2.	Net gain/(loss) from other experience**	\$(61,755,927)
3.	Net experience gain/(loss): (1) + (2)	\$(81,191,459)

\* Details in Chart 10

\*\* Does not include the effect of assumption changes.

#### **Investment Rate of Return**

CHART 10

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Plan's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets during 2003 is 8.00%. The rate of return on Actuarial Value for the 2003 Plan Year was 2.52%. Since the actual return for the year was less than the assumed return, the Plan experienced an actuarial loss on Actuarial Value during the year ended December 31, 2003. However, non-valuation reserves from prior years were used to make up for part of the loss in developing the Valuation Value of assets. This is the reason why the return on the Valuation Value was higher than the Actuarial Value.

# This chart shows the gain/(loss) due to investment experience.

Investment Experience for Year Ended December 31, 2003 - Valuation Value and Actuarial Value of Assets

		Valuation Value	Actuarial Value
1.	Return	\$244,215,190	\$83,420,012
2.	Average value of assets	\$3,295,621,524	\$3,311,426,116
3.	Rate of return: $(1) \div (2)$	7.41%	2.52%
4.	Assumed rate of return	8.00%	8.00%
5.	Expected return: (2) $x$ (4)	\$263,649,722	\$264,914,089
6.	Gain/(loss): (1) – (5)	<u>\$(19,434,532)</u>	<u>\$(181.494.077)</u>

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rates of return on an actuarial, valuation and market value basis for the last three years. Based upon this experience, future expectations and discussions with the Board, we have changed the assumed rate of return to 7.90%.

#### CHART 11

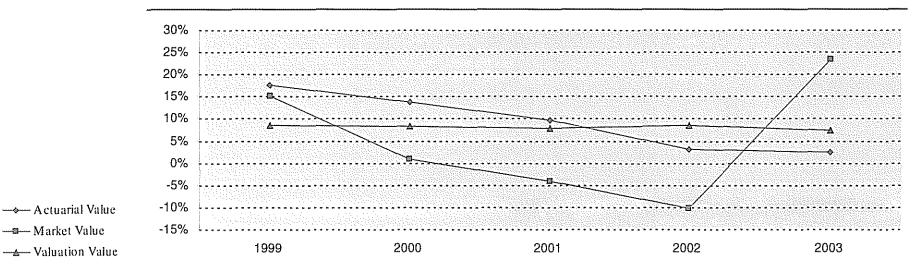
Investment Return – Actuarial Value, Valuation Value and Market Value: 2001-2003

	Actuaria Investmer		Valuation Value Investment Return		Market Value Investme Return	
Year Ended December 31	Amount	Percent of Assets	Amount	Percent of Assets	Amount	Percent of Assets
2001	\$278,746,528	9.73%	\$186,188,249	7.92%	(\$121,804,662)	(4.23%)
2002	\$93,144,770	3.05%	\$227,080,187	8.53%	(\$274,820,794)	(10.28%)
2003	\$83,420,012	2.52%	\$244,215,190	7.41%	\$599,528,120	23.44%
Total	\$455,311,310		\$657,483,626		\$202,902,664	

Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

#### CHART 12

Market, Actuarial and Valuation Value Rates of Return for Years Ended December 31, 1999 - 2003



#### **Other Experience**

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- $\succ$  the extent of turnover among the participants,
- > retirement experience (earlier or later than expected),
- $\succ$  mortality (more or fewer deaths than expected),
- > the number of disability retirements, and
- $\succ$  salary increases different than assumed.

Please see Exhibit I in Section 3 for a detailed reconciliation of changes in the Unfunded Actuarial Accrued Liability.



#### **D. RECOMMENDED CONTRIBUTION**

Employer contributions consist of two components:

Normal Cost	The annual contribution rate which, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution rate is expressed as a level percentage of the member's compensation.
Contribution to the Unfunded	
Actuarial Accrued Liability (UAAL)	That annual contribution rate which, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution (or rate credit in the case of a negative unfunded actuarial accrued liability) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual inflation rate of 4.00% along with expected payroll. The current UAAL is being recognized over a 19-year declining period effective January 1, 2004.
	The recommended employer contributions are provided on Charts 13 and 14.

Member Contributions

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for General and Safety members, respectively. The basic contribution rate is determined as that percentage of compensation which if paid annually from a member's first year of membership through the prescribed retirement age would accumulate to the amount necessary to fund a prescribed annuity. The annuity is equal to 1/120 of one year Final Average Salary per year of service at age 55 for General Tier 1 and Tier 3 Non-enhanced members; 40% of the Tier 1 Non-enhanced member's contribution rate (using threeyear Final Average Salary) for General Tier 2 members; and Safety Non-enhanced members pay for an annuity at age 50 equal to 1/100 of one year Final Average Salary per year of service. The annuity is equal to 1/120 of one year Final Average Salary per year of service at age 60 for General Tier 1 and Tier 3 Enhanced members; and Safety Enhanced members pay for an annuity at age 50 equal to 1/100 of one year Final Average salary per year of service. Member contributions are accumulated at an annual interest rate adopted annually by the Board. The County is now paying 50% of the members' basic contributions on a nonrefundable basis. Districts pay up to 100% of the members' basic contributions on a nonrefundable basis. Members also pay 50% of the cost-of-living benefit. The member contribution rates are provided in Appendix A.

Please note that the terminal pay assumptions are only used in establishing cost-ofliving member contributions. They are not used in establishing the basic member contributions.

#### CHART 13 Comparison of Average Employer Contribution Rates Employer Rates Under Current Assumptions for July 1, 2004 through June 30, 2005

	(20 Year Amortization Period as of December 31, 2002)											
					Non - I	Enhanced						
			County	*****					Districts			
	Normal Cost	<u>+</u>	UAAL		Total	Norn	nal Cost	+	UAAL	=	Total	
General Tier I (Aggregate)												
Basic	9.15%		1.53%		10.68%		9.15%		6.27%		15.42%	
Subvention	3.31%		0.00%		3.31%		3.31%		0.00%		3.31%	
Basic + Subvention	12.46%		1.53%		13.99%	1	2.46%		6.27%		18.73%	
COL	2.68%		1.05%		3.73%		2.68%		4.59%		7.27%	
Total	15.14%		2.58%		17.72%	1	5.14%	-	10.86%		26.00%	
General Tier 1 (Under \$350)												
Basic	6.23%		1.04%		7.27%		6.23%		4.27%		10.50%	
Subvention	2.26%		0,00%		2.26%		2.26%		0.00%		2.26%	
Basic + Subvention	8.49%		1.04%		9.53%		8.49%		4.27%		12.76%	
COL	1.83%		0.71%		2,54%		1.83%		3.14%		4.97%	
Total	10.32%		1.75%		12,07%	1	0.32%		7.41%		17.73%	
General Tier 1 (Over \$350)												
Basic	9.35%		1.56%		10.91%		9.35%		6.41%		15.76%	
Subvention	3.38%		0.00%		3.38%		3.38%		0.00%		3.38%	
Basic + Subvention	12.73%	********	1.56%		14.29%	1	2.73%		6.41%		19.14%	
COL	2.75%		1.06%	_	3.81%		2,75%		4.70%		7.45%	
Total	15.48%		2.62%		18.10%	1	5.48%	-	11.11%		26.59%	

4.25%, 8.00% Interest and 5.71% Salary Scale Assumptions (20 Year Amortization Period as of December 31, 2002)

\* SEGAL

#### Employer Rates Under Current Assumptions for July 1, 2004 through June 30, 2005

<u></u>		4.25%, 8.00% Interest and 5.71% Salary Scale Assumptions (20 Year Amortization Period as of December 31, 2002)												
	Non-Enhanced													
		County			Districts									
	Normal Cost +	UAAL	= Total	Normal Cost +	UAAL	= Totał								
General Tier 2														
Basic	7.16%	1.53%	8.69%	7.16%	6.27%	13.43%								
Subvention	1.40%	0.00%	1.40%	1.40%	0.00%	1.40%								
Basic + Subvention	8.56%	1.53%	10.09%	8.56%	6.27%	14.83%								
COL	2.44%	1.06%	3.50%	2.44%	4,59%	7.03%								
Total	11.00%	2.59%	13.59%	11.00%	10.86%	21.86%								
Safety														
Basic				12.43%	4.89%	17.32%								
Subvention				4.25%	0.00%	4.25%								
Basic + Subvention				16.68%	4.89%	21.57%								
COL				3.59%	7.23%	10.82%								
Total				20.27%	12.12%	32.39%								

#### Employer Rates Under Current Assumptions for July 1, 2004 through June 30, 2005

(20 Year Amortization Period as of December 31, 2002)										
				Non-E	Inhanced					
		County					Districts			
Normal Cost	+	UAAL		Total	Normal Cost	+	UAAL		Total	
8.06%		1,58%		9.64%	8.06%		6.86%		14.92%	
3,50%		0.00%		3.50%	3.50%		0.00%		3.50%	
11.56%		1.58%		13.14%	11.56%		6.86%		18.42%	
2.37%		1.07%		3.44%	2.37%		4.69%		7.06%	
13.93%		2.65%		16.58%	13.93%	*******	11.55%		25.48%	
5.47%		1.07%		6.54%	5.47%		4.66%		10.13%	
2,38%		0.00%		2.38%	2.38%		0.00%		2,38%	
7.85%		1.07%		8.92%	7.85%		4.66%		12.51%	
1.61%		0.73%		2.34%	1.61%		3.18%		4.79%	
9.46%		1.80%		11.26%	9,46%		7.84%		17.30%	
8.21%		1.61%		9.82%	8.21%		6.99%		15.20%	
3.57%		0.00%		3.57%	3.57%		0.00%		3.57%	
11.78%	***	1.61%		13.39%	11.78%		6.99%		18.77%	
2.41%		1.09%		3.50%	2.41%		4.77%		7.18%	
14.19%		2.70%		16.89%	14.19%		11.76%		25.95%	
	8.06% 3.50% 11.56% 2.37% 13.93% 5.47% 2.38% 7.85% 1.61% 9.46% 8.21% 3.57% 11.78% 2.41%	8.06%         3.50%         11.56%         2.37%         13.93%         5.47%         2.38%         7.85%         1.61%         9.46%         8.21%         3.57%         11.78%         2.41%	Normal Cost         +         UAAL $8.06\%$ $1.58\%$ $3.50\%$ $0.00\%$ $11.56\%$ $1.58\%$ $2.37\%$ $1.07\%$ $13.93\%$ $2.65\%$ $5.47\%$ $1.07\%$ $2.38\%$ $0.00\%$ $7.85\%$ $1.07\%$ $1.61\%$ $0.73\%$ $9.46\%$ $1.80\%$ $8.21\%$ $1.61\%$ $3.57\%$ $0.00\%$ $11.78\%$ $1.61\%$ $2.41\%$ $1.09\%$	County           Normal Cost         +         UAAL         = $8.06\%$ $1.58\%$	Non-E           County         Total $8.06\%$ $1.58\%$ $9.64\%$ $3.50\%$ $0.00\%$ $3.50\%$ $11.56\%$ $1.58\%$ $13.14\%$ $2.37\%$ $1.07\%$ $3.44\%$ $13.93\%$ $2.65\%$ $16.58\%$ $5.47\%$ $1.07\%$ $6.54\%$ $5.47\%$ $1.07\%$ $6.54\%$ $5.47\%$ $1.07\%$ $6.54\%$ $5.47\%$ $1.07\%$ $6.54\%$ $8.21\%$ $1.07\%$ $8.92\%$ $3.57\%$ $1.06\%$ $11.26\%$ $8.21\%$ $1.61\%$ $9.82\%$ $3.57\%$ $0.00\%$ $3.57\%$ $11.78\%$ $1.61\%$ $13.39\%$ $2.41\%$ $1.09\%$ $3.50\%$	Non-Enhanced           County         Normal Cost         +         UAAL         =         Total         Normal Cost $8.06\%$ $1.58\%$ $9.64\%$ $8.06\%$ $3.50\%$ $3.50\%$ $3.50\%$ $3.50\%$ $0.00\%$ $3.50\%$ $3.50\%$ $3.50\%$ $11.56\%$ $1.58\%$ $13.14\%$ $11.56\%$ $2.37\%$ $1.07\%$ $3.44\%$ $2.37\%$ $13.93\%$ $2.65\%$ $16.58\%$ $13.93\%$ $5.47\%$ $1.07\%$ $6.54\%$ $5.47\%$ $5.38\%$ $0.00\%$ $2.38\%$ $2.38\%$ $7.85\%$ $1.07\%$ $8.92\%$ $7.85\%$ $1.61\%$ $0.73\%$ $2.34\%$ $1.61\%$ $9.46\%$ $1.80\%$ $11.26\%$ $9.46\%$ $8.21\%$ $1.61\%$ $9.82\%$ $8.21\%$ $8.21\%$ $1.61\%$ $9.3.57\%$ $3.57\%$ $11.78\%$ $1.61\%$ $13.39\%$ $11.78\%$ $4.10\%$ $1.09\%$ $3.50\%$ $2.41\%$	County         Normal Cost         +         UAAL         =         Total         Normal Cost         + $8.06\%$ $1.58\%$ $9.64\%$ $8.06\%$ $3.50\%$ $3.50\%$ $3.50\%$ $3.50\%$ $0.00\%$ $3.50\%$ $3.50\%$ $3.50\%$ $11.56\%$ $1.58\%$ $13.14\%$ $11.56\%$ $2.37\%$ $2.37\%$ $1.07\%$ $3.44\%$ $2.37\%$ $13.93\%$ $2.65\%$ $16.58\%$ $13.93\%$ $5.47\%$ $1.07\%$ $6.54\%$ $5.47\%$ $2.38\%$ $0.00\%$ $2.38\%$ $2.38\%$ $7.85\%$ $1.07\%$ $8.92\%$ $7.85\%$ $1.61\%$ $0.73\%$ $2.34\%$ $1.61\%$ $9.46\%$ $1.80\%$ $11.26\%$ $9.46\%$ $8.21\%$ $1.61\%$ $9.82\%$ $8.21\%$ $8.21\%$ $1.61\%$ $13.39\%$ $11.78\%$ $11.78\%$ $1.61\%$ $13.39\%$ $11.78\%$	Non-Enhanced           Normal Cost         +         UAAL         =         Total         Normal Cost         +         UAAL $8.06\%$ 1.58%         9.64%         8.06%         6.86% $3.50\%$ 0.00% $3.50\%$ 0.00% $11.56\%$ 1.58%         13.14%         11.56%         6.86% $2.37\%$ 1.07% $3.44\%$ 2.37%         4.69% $13.93\%$ 2.65%         16.58%         13.93%         11.55% $5.47\%$ 1.07% $6.54\%$ $5.47\%$ 4.66% $2.38\%$ 0.00% $2.38\%$ 0.00% $3.18\%$ $9.46\%$ 1.07% $8.92\%$ $7.85\%$ $4.66\%$ $1.61\%$ 0.73\% $2.34\%$ $1.61\%$ $3.18\%$ $9.46\%$ 1.80\% $11.26\%$ $9.46\%$ $7.84\%$ $8.21\%$ $1.61\%$ $9.82\%$ $8.21\%$ $6.99\%$ $3.57\%$ $0.00\%$ $3.57\%$ $3.57\%$ $0.00\%$ $11.78\%$ $1.61\%$ $13.39\%$ $11.78\%$	Nor-Enhanced           County         Districts           Normal Cost         +         UAAL         =         Total         Normal Cost         +         UAAL         = $8.06\%$ 1.58%         9.64% $8.06\%$ 6.86%         .         .         = $8.06\%$ 1.58%         9.64% $8.06\%$ 6.86%         .         .         .         = $8.06\%$ 1.58%         9.64% $8.06\%$ 6.86%         . </td	

4.25%, 8.00% Interest and 5.71% Salary Scale Assumptions (20 Year Amortization Period as of December 31, 2002)

#### Employer Rates Under Current Assumptions for July 1, 2004 through June 30, 2005

		(20 Year Amortization Period as of December 31, 2002)											
					Enh	anced							
			County			www.auto.co.	Districts						
	Normal Cost	+	UAAL		Total	Normal Cost +	UAAL	=	Total				
General Tier 1 (Aggregate)													
Basic	10.83%		1.16%		11.99%	10.83%	5.91%		16.74%				
Subvention	2.38%		0.00%		2.38%	2.38%	0.00%		2.38%				
Basic + Subvention	13.21%		1.16%		14.37%	13.21%	5.91%		19.12%				
COL	3.08%		0.90%		3.98%	3.08%	4.43%		7.51%				
Total	16.29%		2.06%		18.35%	16.29%	10.34%		26.63%				
General Tier 1 (Under \$350)													
Basic	7.38%		0.79%		8.17%	7.38%	4.03%		11.41%				
Subvention	1.62%		0.00%		1.62%	1.62%	0.00%		1.62%				
Basic + Subvention	9.00%		0.79%		9.79%	9.00%	4.03%		13.03%				
COL	2.10%		0.61%		2.71%	2.10%	3.02%		5.12%				
Total	11.10%	***	1.40%		12.50%	11.10%	7.05%		18.15%				
General Tier 1 (Over \$350)													
Basic	11.07%		1.19%		12.26%	11.07%	6.05%		17.12%				
Subvention	2.43%		0.00%		2.43%	2.43%	0.00%		2.43%				
Basic + Subvention	13.50%		1.19%		14.69%	13.50%	6.05%		19.55%				
COL	3.15%		0.91%		4.06%	3.15%	4.53%		7.68%				
Total	16.65%		2.10%		18.75%	16.65%	10.58%		27.23%				

4.25%, 8.00% Interest and 5.71% Salary Scale Assumptions (20 Year Amortization Period as of December 31, 2002)

#### Employer Rates Under Current Assumptions for July 1, 2004 through June 30, 2005

				(20 Year	Amortization Peri	od as of December 31, 200	)2)				
		Enhanced									
			County			Districts		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
	Normal Cost	+	UAAL	****	Total	Normal Cost +	UAAL	****	Total		
Safety											
Basic	18.74%		2.14%		20.88%	18.74%	10.08%		28.82%		
Subvention	4.02%		0.00%		4.02%	4.02%	0.00%		4.02%		
Basic + Subvention	22.76%		2.14%		24.90%	22.76%	10.08%		32.84%		
COL	5.32%		2.45%		7.77%	5.32%	9.87%		15.19%		
Total	28,08%		4.59%		32.67%	28.08%	19.95%		48.03%		

4.25%, 8.00% Interest and 5.71% Salary Scale Assumptions (20 Year Amortization Period as of December 31, 2002)

#### Employer Rates Under Current Assumptions for July 1, 2004 through June 30, 2005

				(20 Year	Amortization Per	iod as of December	31, 2002)		
					Enh	anced			
			County					Districts	
	Normal Cost	+	UAAL	=	Total	Normal Cos	t +	UAAL	 Total
General Tier 3 (Aggregate)									
Basic	10.11%		1.22%		11.33%	10.11%		6.49%	16.60%
Subvention	2,95%		0.00%		2.95%	2.95%		0.00%	2.95%
Basic + Subvention	13.06%		1,22%		14.28%	13.06%		6.49%	 19.55%
COL	2.75%		0.91%		3.66%	2.75%		4.54%	7.29%
Total	15.81%		2,13%		17.94%	15.81%		11.03%	 26.84%
General Tier 3 (Under \$350)									
Basic	6.87%		0.83%		7.70%	6.87%		4.44%	11.31%
Subvention	2.00%		0.00%		2.00%	2.00%		0.00%	2.00%
Basic + Subvention	8.87%		0,83%		9.70%	8.87%		4.44%	 13.31%
COL	1.86%		0.62%		2.48%	1.86%		3.11%	4.97%
Total	10.73%		1.45%		12.18%	10.73%		7.55%	 18.28%
General Tier 3 (Over \$350)									
Basic	10.30%		1.25%		11.55%	10.30%		6,66%	16.96%
Subvention	3.00%		0.00%		3.00%	3,00%		0.00%	3.00%
Basic + Subvention	13.30%		1.25%		14.55%	13.30%		6.66%	 19.96%
COL	2.80%		0.93%	_	3.73%	2.80%		4.66%	7.46%
Total	16.10%		2.18%		18.28%	16.10%		11.32%	 27.42%

4.25%, 8.00% Interest and 5.71% Salary Scale Assumptions (20 Year Amortization Period as of December 31, 2002)

### CHART 13 (continued)

#### Employer Rates Under Current Assumptions for July 1, 2004 through June 30, 2005

	Normal Cost +	UAAL =	Total
Basic	11.97%	2.47%	14,44%
Subvention	3.09%	0.00%	3.09%
Basic + Subvention	15.06%	2.47%	17.53%
COL	3.35%	2.18%	5.53%
Total	18.41%	4.65%	23.06%

Grand Total (Includes Both Enhanced and Non-enhanced - County and District)

Payroli	Ti	Tier 1		Tier 1 Tier 2 Tier 3 Si			Sa	fety	Total
	Non-			Non-		Non-			
	<b>Enhanced</b>	<b>Enhanced</b>		<b>Enhanced</b>	<b>Enhanced</b>	<b>Enhanced</b>	<b>Enhanced</b>		
County	\$1,873,000	\$62,179,000	\$16,714,000	\$17,142,000	\$321,613,000	-	\$83,228,000	\$502,749,000	
Districts	11,525,000	29,327,000	1,007,000	343.000	627,000	<u>\$4,496,000</u>	50,199,000	97,524,000	
Total	\$13,398,000	\$91,506,000	\$17,721,000	\$17,485,000	\$322,240,000	\$4,496,000	\$133,427,000	\$600,273,000	

#### CHART 14

#### Components of Recommended Employer Contribution Rates Employer Rates Under Recommended Assumptions for July 1, 2005 through June 30, 2006

	(19 Year Amortization Period as of December 31, 2003)											
					Non - I	Inhanced						
	·····		County					Districts				
	Normal Cost	+	UAAL	=	Total	Normal Cost	+	UAAL	=	Total		
General Tier 1 (Aggregate)												
Basic	11.14%		2.88%		14.02%	11.14%		7.12%		18.26%		
Subvention	3.62%		0.00%		3.62%	3.62%		0.00%		3.62%		
Basic + Subvention	14.76%		2.88%		17.64%	14.76%		7.12%		21.88%		
COL	2.89%		1.58%		4,47%	2.89%		4.86%	_	7.75%		
Total	17.65%		4.46%		22.11%	17.65%		11.98%		29.63%		
General Tier 1 (Under \$350)												
Basic	7,60%		1.95%		9.55%	7.60%		4.86%		12.46%		
Subvention	2.47%		0.00%		2.47%	2.47%		0.00%		2.47%		
Basic + Subvention	10.07%		1,95%		12.02%	10.07%	-	4.86%		14.93%		
COL	1.96%		1.07%		3.03%	1.96%		3.32%		5.28%		
Total	12.03%		3.02%		15.05%	12.03%	•• ••••••••	8.18%		20.21%		
General Tier 1 (Over \$350)												
Basic	11.40%		2,93%		14.33%	11.40%		7.29%		18.69%		
Subvention	3.70%		0.00%		3.70%	3.70%		0.00%		3,70%		
Basic + Subvention	15.10%		2.93%	Montain L	18.03%	15.10%		7.29%		22.39%		
COL	2.95%		1.60%		4.55%	2.95%		4.98%		7.93%		
Total	18,05%		4.53%		22.58%	18.05%		12.27%		30.32%		

4.00%, 7.90% Interest and 6.41% Salary Scale Assumptions

#### CHART 14 (continued)

#### Employer Rates Under Recommended Assumptions for July 1, 2005 through June 30, 2006

		(19 Year	Amortization Peri	iod as of December 31, 200.	5)			
			Non-E	nhanced				
	County			Districts				
Normal Cost	+ UAAL	=	Total	Normal Cost +	UAAL		Total	
8.92%	2.88%		11.80%	8.92%	7.12%		16.04%	
1.46%	0.00%		1.46%	1.46%	0.00%		1.46%	
10.38%	2.88%		13.26%	10.38%	7.12%		17.50%	
2.95%	1.58%		4.53%	2.95%	4.86%		7.81%	
13.33%	4,46%		17.79%	13.33%	11.98%		25.31%	
				15.36%	5.55%		20.91%	
				4.67%	0.00%		4.67%	
				20.03%	5.55%	_	25.58%	
				3.92%	7.60%		11.52%	
				23.95%	13.15%		37.10%	
	8.92% 1.46% 10.38% 2.95%	Normal Cost         +         UAAL           8.92%         2.88%           1.46%         0.00%           10.38%         2.88%           2.95%         1.58%	County           Normal Cost         +         UAAL         = $8.92\%$ $2.88\%$	County         Normal Cost         +         UAAL         =         Total $8.92\%$ $2.88\%$ $11.80\%$ 1.46% $1.46\%$ $0.00\%$ $1.46\%$ $10.38\%$ $2.88\%$ $13.26\%$ $2.95\%$ $1.58\%$ $4.53\%$	Non-Enhanced           County           Normal Cost         +         UAAL         =         Total         Normal Cost         + $8.92\%$ $2.88\%$ $11.80\%$ $8.92\%$ $1.46\%$ $1.46\%$ $1.46\%$ $10.38\%$ $2.88\%$ $13.26\%$ $10.38\%$ $2.95\%$ $1.58\%$ $4.53\%$ $2.95\%$ $13.33\%$ $4.46\%$ $17.79\%$ $13.33\%$ $15.36\%$ $4.67\%$ $20.03\%$ $3.92\%$ $3.92\%$	County         Districts           Normal Cost         +         UAAL         =         Total         Normal Cost         +         UAAL $8.92\%$ $2.88\%$ $11.80\%$ $8.92\%$ $7.12\%$ $1.46\%$ $0.00\%$ $1.46\%$ $1.46\%$ $0.00\%$ $10.38\%$ $2.88\%$ $13.26\%$ $10.38\%$ $7.12\%$ $2.95\%$ $1.58\%$ $4.53\%$ $2.95\%$ $4.86\%$ $13.33\%$ $4.46\%$ $17.79\%$ $13.33\%$ $11.98\%$ $15.36\%$ $5.55\%$ $4.67\%$ $0.00\%$ $20.03\%$ $5.55\%$ $3.92\%$ $7.60\%$	Non-Enhanced           County         Districts           Normal Cost         +         UAAL         =         Total         Normal Cost         +         UAAL         = $8.92\%$ $2.88\%$ 11.80% $8.92\%$ $7.12\%$ = $1.46\%$ $0.00\%$ $1.46\%$ $1.46\%$ $0.00\%$ = $10.38\%$ $2.88\%$ $13.26\%$ $10.38\%$ $7.12\%$ = $2.95\%$ $1.58\%$ $4.53\%$ $2.95\%$ $4.86\%$ = $13.33\%$ $4.46\%$ $17.79\%$ $13.33\%$ $11.98\%$ = $15.36\%$ $5.55\%$ $3.92\%$ $7.60\%$ =	

(19 Year Amortization Period as of December 31, 2003)

4.00%, 7.90% Interest and 6.41% Salary Scale Assumptions

**SECTION 2:** 

#### Employer Rates Under Recommended Assumptions for July 1, 2005 through June 30, 2006

		(19 Tear Amortzation Period as of December 51, 2005)											
					Non-E	Inhanced							
			County				Districts						
	Normal Cost	+	UAAL	=	Total	Normal Cost +	UAAL		Total				
General Tier 3 (Aggregate)													
Basic	10.08%		2.95%		13.03%	10.08%	7.66%		17.74%				
Subvention	3.77%		0.00%		3.77%	3.77%	0.00%		3.77%				
Basic + Subvention	13.85%	_	2.95%		16.80%	13.85%	7.66%		21.51%				
COL	2.88%		1.59%		4.47%	2.88%	4.96%		7.84%				
Total	16.73%		4.54%		21.27%	16.73%	12.62%		29.35%				
General Tier 3 (Under \$350)													
Basic	6.83%		2.00%		8.83%	6.83%	5.19%		12.02%				
Subvention	2.56%		0.00%		2.56%	2.56%	0.00%		2.56%				
Basic + Subvention	9.39%		2.00%		11.39%	9.39%	5.19%		14.58%				
COL	1.95%		1.08%		3.03%	1.95%	3.36%		5.31%				
Total	11.34%		3.08%		14.42%	11.34%	8.55%		19.89%				
General Tier 3 (Over \$350)													
Basic	10.25%		3.00%		13.25%	10.25%	7.79%		18.04%				
Subvention	3.83%	•	0.00%		3.83%	3.83%	0.00%		3.83%				
Basic + Subvention	14,08%		3.00%		17.08%	14.08%	7.79%		21.87%				
COL	2.93%		1.62%		4.55%	2.93%	5.04%		7.97%				
Total	17.01%		4.62%		21.63%	17.01%	12.83%		29.84%				

# 4.00%, 7.90% Interest and 6.41% Salary Scale Assumptions (19 Year Amortization Period as of December 31, 2003)

4.00%, 7.90% Interest and 6.41% Salary Scale Assumptions

#### CHART 14 (continued)

#### Employer Rates Under Recommended Assumptions for July 1, 2005 through June 30, 2006

				od as of December 31, 200			
			Enh	anced			
		County	 ·····		Districts		·····
	Normal Cost	+ UAAL	 Total	Normal Cost +	UAAL	=	Total
General Tier I (Aggregate)							
Basic	13.34%	2.77%	16.11%	13.34%	7.01%		20.35%
Subvention	2.97%	0.00%	2.97%	2.97%	0.00%		2.97%
Basic + Subvention	16.31%	2.77%	 19.08%	16.31%	7.01%		23.32%
COL	3.95%	1.65%	5.60%	3.95%	4.93%		8.88%
Total	20,26%	4.42%	 24.68%	20.26%	11.94%		32,20%
General Tier 1 (Under \$350)							
Basic	9.09%	1.89%	10.98%	9.09%	4.77%		13.86%
Subvention	2.03%	0.00%	 2.03%	2.03%	0.00%		2.03%
Basic + Subvention	11,12%	1.89%	 13.01%	11.12%	4.77%		15.89%
COL	2.69%	1.12%	 3.81%	2.69%	3.35%		6.04%
Total	13.81%	3.01%	16.82%	13.81%	8.12%		21.93%
General Tier 1 (Over \$350)							
Basic	13.64%	2.83%	16.47%	13.64%	7.15%		20.79%
Subvention	3.04%	0.00%	 3.04%	3.04%	0.00%		3.04%
Basic + Subvention	16.68%	2.83%	 19.51%	16.68%	7.15%		23.83%
COL	4.04%	1.68%	 5.72%	4.04%	5.03%		9.07%
Total	20.72%	4,51%	 25.23%	20.72%	12.18%		32.90%

#### Employer Rates Under Recommended Assumptions for July 1, 2005 through June 30, 2006

	(19 Year Amortization Period as of December 31, 2003)							
		Enhanced						
		County				Districts		
	Normal Cost +	UAAL		Total	Normal Cost +	UAAL		Total
Safety								
Basic	22.97%	5.30%		28.27%	22.97%	13.75%		36.72%
Subvention	4.53%	0.00%		4.53%	4.53%	0.00%		4.53%
Basic + Subvention	27.50%	5.30%		32.80%	27.50%	13.75%		41.25%
COL	6.66%	3.97%		10.63%	6.66%	11.84%		18.50%
Total	34.16%	9,27%		43.43%	34.16%	25.59%		59.75%

4.00%, 7.90% Interest and 6.41% Salary Scale Assumptions

#### Employer Rates Under Recommended Assumptions for July 1, 2005 through June 30, 2006

			(19 Year	Amortization Per	rod as of December 31, 200	3)		
Enhanced								
County				Districts				
Normal Cost	+	UAAL	=	Total	Normal Cost +	UAAL	=	Total
11.57%		2.84%		14.41%	11.57%	7.55%		19.12%
3.22%		0.00%		3.22%	3.22%	0.00%		3.22%
14.79%		2.84%		17.63%	14.79%	7.55%		22.34%
3.20%		1.66%		4.86%	3.20%	5.03%		8.23%
17.99%		4.50%		22.49%	17.99%	12.58%		30.57%
7.85%		1.94%		9.79%	7.85%	5.16%		13.01%
2.18%		0.00%		2.18%	2.18%	0.00%		2.18%
10.03%	_	1.94%		11.97%	10.03%	5.16%		15.19%
2.16%		1.14%		3.30%	2.16%	3.44%		5.60%
12.19%		3.08%		15.27%	12.19%	8.60%		20.79%
11.77%		2.91%		14.68%	11.77%	7.74%		19.51%
3.27%		0.00%		3.27%	3.27%	0.00%		3.27%
15.04%		2.91%		17.95%	15.04%	7.74%		22.78%
3.25%		1.71%		4.96%	3.25%	5.16%		8.41%
18.29%		4.62%		22.91%	18.29%	12.90%		31.19%
	11.57% 3.22% 14.79% 3.20% 17.99% 7.85% 2.18% 10.03% 2.16% 12.19% 11.77% 3.27% 15.04% 3.25%	11.57%         3.22%         14.79%         3.20%         17.99%         7.85%         2.18%         10.03%         2.16%         12.19%         11.77%         3.27%         15.04%         3.25%	Normal Cost         +         UAAL           11.57%         2.84%           3.22%         0.00%           14.79%         2.84%           3.20%         1.66%           17.99%         4.50%           7.85%         1.94%           2.18%         0.00%           10.03%         1.94%           2.16%         1.14%           12.19%         3.08%           11.77%         2.91%           3.27%         0.00%           15.04%         2.91%           3.25%         1.71%	County           Normal Cost         +         UAAL         =           11.57%         2.84%	Ent           County           Normal Cost         +         UAAL         =         Total           11.57%         2.84%         14.41%           3.22%         0.00%         3.22%           14.79%         2.84%         17.63%           3.20%         1.66%         4.86%           17.99%         4.50%         22.49%           7.85%         1.94%         9.79%           2.18%         0.00%         2.18%           10.03%         1.94%         11.97%           2.16%         1.14%         3.30%           12.19%         3.08%         15.27%           11.77%         2.91%         14.68%           3.27%         0.00%         3.27%           15.04%         2.91%         17.95%           3.25%         1.71%         4.96%	Enhanced           Normal Cost         +         UAAL         =         Total         Normal Cost         +           11.57%         2.84%         14.41%         11.57%         3.22%         3.22%         11.57%           3.22%         0.00%         3.22%         3.22%         3.22%           14.79%         2.84%         17.63%         14.79%           3.20%         1.66%         4.86%         3.20%           17.99%         4.50%         22.49%         17.99%           7.85%         1.94%         9.79%         7.85%           2.18%         0.00%         2.18%         2.18%           10.03%         1.94%         11.97%         10.03%           1.14%         3.30%         2.16%         1.16%           12.19%         3.08%         15.27%         12.19%           11.77%         2.91%         14.68%         11.77%           3.27%         0.00%         3.27%         3.27%           15.04%         2.91%         17.95%         15.04%           3.25%         1.71%         4.96%         3.25%	County         Districts           Normal Cost         +         UAAL         =         Total         Normal Cost         +         UAAL           11.57%         2.84%         14.41%         11.57%         7.55%           3.22%         0.00%         3.22%         3.22%         0.00%           14.79%         2.84%         17.63%         14.79%         7.55%           3.20%         1.66%         4.86%         3.20%         5.03%           17.99%         4.50%         22.49%         17.99%         12.58%           7.85%         1.94%         9.79%         7.85%         5.16%           2.18%         0.00%         2.18%         0.00%         0.00%           10.03%         1.94%         11.97%         10.03%         5.16%           2.16%         1.14%         3.30%         2.16%         3.44%           12.19%         3.08%         15.27%         12.19%         8.60%           11.77%         2.91%         14.68%         11.77%         7.74%           3.27%         0.00%         3.27%         3.27%         0.00%           15.04%         2.91%         17.95%         15.04%         7.74%	Enhanced           Normal Cost         +         UAAL         =         Total         Normal Cost         +         UAAL         =           11.57%         2.84%         14.41%         11.57%         7.55%

4.00%, 7.90% Interest and 6.41% Salary Scale Assumptions (19 Year Amortization Period as of December 31, 2003)

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#### SECTION 2: Valuation Results for the Contra Costa County Employees' Retirement Association

## CHART 14 (continued)

### Employer Rates Under Recommended Assumptions for July 1, 2005 through June 30, 2006

Grand Total (inclue	nu Total (Includes both Emilanced and Non-emilanced – County and District)					
	Normal Cost +	UAAL =	Total			
Basic	14.27%	4.41%	18.68%			
Subvention	3.45%	0.00%	3.45%			
Basic + Subvention	17.73%	4.41%	22.14%			
COL	4.07%	3.10%	7.17%			
Total	21.79%	7.51%	29,31%			

Grand Total (Includes Both Enhanced and Non-enhanced – County and District)

Payroll	Ti	er 1	Tier 2	Ti	er 3	Sa	fety	Total
	Non-			Non-		Non-		
	<b>Enhanced</b>	Enhanced		<b>Enhanced</b>	Enhanced	Enhanced	<b>Enhanced</b>	
County	\$1,873,000	\$62,179,000	\$16,714,000	\$17,142,000	\$321,613,000	-	\$83,228,000	\$502,749,000
Districts	11,525,000	29,327,000	1,007,000	343,000	627.000	<u>\$4,496,000</u>	_50,199,000	97.524.000
Total	\$13,398,000	\$91,506,000	\$17,721,000	\$17,485,000	\$322,240,000	\$4,496,000	\$133,427,000	\$600,273,000

The employer contribution rates as of December 31, 2003 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions. **Reconciliation of Recommended Contribution Rate** The chart below details the changes in the recommended employer contribution rate from the prior valuation to the current year's valuation.

#### CHART 15

# Reconciliation of Recommended Employer Contribution from December 31, 2002 to December 31, 2003

	Contribution Rate	Estimated Annual Dollar Cost*
Recommended Employer Contribution Rate in December 31, 2002 Valuation	23.06%	\$ 138,420,000
Effect of investment (gain)/loss <sup>(1)</sup>	0.24%	1,441,000
Effect of delay in implementing contribution rates from 12/31/2002 valuation <sup>(2)</sup>	0.14%	840,000
Effect of salary increase more than expected <sup>(3)</sup>	0.75%	4,502,000
Effect of change in normal cost <sup>(4)</sup>	0.50%	3,001,000
Effect of change in benefit <sup>(5)</sup>	0.11%	660,000
Effect of change in actuarial assumptions <sup>(6)</sup>	4.54%	27,252,000
Effect of net other changes <sup>(7)</sup>	(0.03%)	(192,000)
Total change	<u>6.25%</u>	<u>\$37,504,000</u>
Recommended Employer Contribution Rate in December 31, 2003 Valuation	29.31%	\$175,924,000

\* Based on projected payroll as of 12/31/2003 of \$600,273,908.

(1) Return on valuation of assets was 7.41% and less than the 8.00% assumed in the valuation.

<sup>(2)</sup> This accounts for the UAAL increase that results from any time gap between the valuation and the implementation of resulting contribution rates.

<sup>(3)</sup> Average salary increase was greater than the 5.71% assumed in the valuation.

<sup>(4)</sup> There were some differences in normal costs as a result of demographic shifts.

<sup>(5)</sup> Three Districts implemented enhanced benefits during 2003.

<sup>(6)</sup> Includes assumption changes in inflation, investment return and those adopted in the December 31, 2003 experience study. See chart 16 for a more detailed breakdown of this item.

(7) Rate changes from miscellaneous and untraced sources.

## CHART 16

# Reconciliation of Change in Recommended Employer Contribution Due to Change in Actuarial Assumptions

	Change in Contribution Rate	Estimated Annual Dollar Cost*
Effect of change in salary scale assumption	1.69%	\$10,145,000
Effect of addition of service from unused sick leave conversion assumption	0.70%	4,202,000
Effect of change in investment return assumption	0.86%	5,162,000
Effect of change in safety disability mortality assumption	0.28%	1,681,000
Effect of change in withdrawal rate assumption	0.34%	2,041,000
Effect of change in other actuarial assumptions	0.67%	4.021.000
'otal change	<u>4.54%</u>	<u>\$27,252,000</u>

\* Based on projected payroll as of 12/31/2003 of \$600,273,908.

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The member contribution rates as of December 31, 2003 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

#### **Reconciliation of Recommended Contribution Rate**

The chart below details the changes in the recommended member contribution rate from the prior valuation to the current year's valuation.

The chart reconciles the contribution from the prior valuation to the amount determined in this valuation.

#### CHART 17

Reconciliation of Recommended Member Contribution from December 31, 2002 to December 31, 2003

	Contribution Rate	Estimated Annual Dollar Cost*
Recommended Member Contribution Rate in December 31, 2002 Valuation	6.55%	\$39,317,000
Effect of change in actuarial assumptions <sup>(1)</sup>	0.82%	4,922,000
Effect of other experience (gains)/losses <sup>(2)</sup>	<u>0.06%</u>	384,000
Total change	<u>0.88%</u>	\$5,306,000
Recommended Member Contribution Rate in December 31, 2003 Valuation	7.43%	\$44,623,000

\* Based on projected payroll as of 12/31/2003 of \$600,273,908.

<sup>(1)</sup> Includes assumption changes in inflation, investment return and those adopted in the December 31, 2003 experience study.

<sup>(2)</sup> Rate changes from miscellaneous and untraced sources.

#### E. INFORMATION REOUIRED BY THE GASB

Government Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

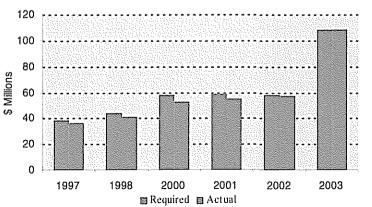
Critical information to GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded on an actuarially sound basis and in accordance with the GASB funding requirements. Chart 18 below presents a graphical representation of this information for the Plan The other critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the assets of the plan to the liabilities of the plan as calculated under GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other changes.

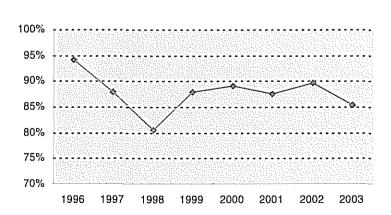
The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits I, II, and III.

CHART 19

**Funded Ratio** 

# These graphs show keyCHART 18GASB factors.Required Versus Actual Contributions





### EXHIBIT A

**Table of Plan Coverage** 

i. General Tier 1

	Year Ended	December 31		
Category	2003	2002	Change From Prior Year	
Active members in valuation				
Number	1,504	1,639	-8.2%	
Average age	48.7	48,9	N/A	
Average service	15.3	15.9	N/A	
Projected total compensation <sup>(1)</sup>	\$104,904,771	\$106,921,443	-1.9%	
Projected average compensation	\$69,751	\$65,236	6.9%	
Account balances	\$78,908,886	\$86,952,687	-9.3%	
Total active vested members	1,202	1,181	1.8%	
Vested terminated members <sup>(2)</sup>	310	309	0.3%	
Retired members				
Number in pay status	2,655	2,611	1.7%	
Average age	72.8	73.0	N/A	
Average monthly benefit	\$2,372	\$2,136	11.0%	
Disabled members				
Number in pay status	387	390	-0.8%	
Average age	64.7	64.6	N/A	
Average monthly benefit	\$1,998	\$1,842	8.5%	
Beneficiaries				
Number in pay status	724	712	1.7%	
Average age	73.0	73.1	N/A	
Average monthly benefit	\$1,388	\$1,147	21.0%	

(1) Calculated by increasing actual calendar year 2003 salaries by the assumed salary scale.

<sup>(2)</sup> Includes only members who have terminated employment with CCCERA.

**EXHIBIT A (continued)** 

**Table of Plan Coverage** 

ii. General Tier 2

	Year Ended	December 31	
Category	2003	2002	Change From Prior Year
Active members in valuation			
Number	285	280	1.8%
Average age	44.5	44.9	N/A
Average service	3.1	3.1	N/A
Projected total compensation <sup>(1)</sup>	\$17,721,045	\$15,677,235	13.0%
Projected average compensation	\$62,179	\$55,990	11.1%
Account balances	\$1,381,243	\$1,218,311	13.4%
Total active vested members	33	40	-17.5%
Vested terminated members <sup>(2)</sup>	436	570	-23.5%
Retired members			
Number in pay status	393	379	3.7%
Average age	67.3	66.9	N/A
Average monthly benefit	\$720	\$696	3.4%
Disabled members			
Number in pay status	71	68	4.4%
Average age	61.4	61.2	N/A
Average monthly benefit	\$1,652	\$1,600	3.3%
Beneficiaries			
Number in pay status	66	59	11.9%
Average age	52.9	50.5	N/A
Average monthly benefit	\$814	\$760	7.1%

Calculated by increasing actual calendar year 2003 salaries by the assumed salary scale.
 Includes only members who have terminated employment with CCCERA

**EXHIBIT A (continued)** 

Table of Plan Coverage

iii. General Tier 3

	Year Ended	December 31		
Category	2003	2002	Change From Prior Year	
Active members in valuation				
Number	5,989	5,935	0.9%	
Average age	45.6	45.1	N/A	
Average service	8.2	7.8	N/A	
Projected total compensation <sup>(1)</sup>	\$339,725,545	\$326,763,845	4.0%	
Projected average compensation	\$56,725	\$55,057	3.0%	
Account balances	\$91,036,664	\$69,527,082	30.9%	
Total active vested members	3,388	3,129	8.3%	
Vested terminated members <sup>(2)</sup>	306	20	1,430.0%	
Retired members				
Number in pay status	282	188	50.0%	
Average age	61.4	61.3	N/A	
Average monthly benefit	\$1,216	\$1,109	9.6%	
Disabled members				
Number in pay status	45	29	55.2%	
A verage age	56.5	57.9	N/A	
Average monthly benefit	\$1,911	\$1,738	10.0%	
Beneficiaries				
Number in pay status	20	13	53.8%	
Average age	48.9	50.1	N/A	
Average monthly benefit	\$1,129	\$932	21,1%	

Calculated by increasing actual calendar year 2003 salaries by the assumed salary scale. Includes only members who have terminated employment with CCCERA. (1)

(2)

EXHIBIT A (continued)

Table of Plan Coverage

iv. Safety

	Year Ended	December 31		
Category	2003	2002	Change From Prior Year	
Active members in valuation	······································			
Number	1,698	1,757	-3.4%	
Average age	40.5	40.7	N/A	
Average service	10.7	11.2	N/A	
Projected total compensation <sup>(1)</sup>	\$137,922,547	\$131,052,957	5.2%	
Projected average compensation	\$81,226	\$74,589	8.9%	
Account balances	\$101,848,583	\$100,373,921	1.5%	
Total active vested members	1,145	1,121	2.1%	
Vested terminated members <sup>(2)</sup>	196	168	16.7%	
Retired members				
Number in pay status	668	603	10.8%	
Average age	64.3	64.7	N/A	
Average monthly benefit	\$5,305	\$4,853	9.3%	
Disabled members				
Number in pay status	393	348	12.9%	
Average age	57.3	57.4	N/A	
Average monthly benefit	\$3,785	\$3,341	13.3%	
Beneficiaries				
Number in pay status	232	219	5.9%	
Average age	65.7	65.9	N/A	
Average monthly benefit	\$2,366	\$2,009	17.8%	

Calculated by increasing actual calendar year 2003 salaries by the assumed salary scale. Includes only members who have terminated employment with CCCERA  $\overline{m}$ 

(2)

#### EXHIBIT B

Members in Active Service During Year Ended December 31, 2003 By Age, Years of Service, and Average Annualized Monthly Compensation Rate for December 2003

#### i. General Tier 1 Non-Enhanced

	Years of Service											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over		
Under 25	5	5							-			
	\$39,931	\$39,931							-	- ~.		
25 - 29	16	11	5						-	~ <b>~</b> ·		
	38,114	36,598	\$41,447	÷ -					-			
30 - 34	24	12	8	4	* *				-			
	53,058	47.911	61,496	\$51,622		~ ~	~ ~					
35 - 39	24	10	6	3	5				-			
	48,075	48,636	51,803	58,278	\$36,355	* *	P* W	10 M	-	• •		
40 - 44	33	14	7	7	3	2			-			
	60,340	62,055	58,790	59,386	60,066	\$57,501	14 Au		-			
45 - 49	43	7	7	7	10	9	3		-			
	53,653	50,690	52,658	46.877	45,031	72,963	\$49,509		-			
50 - 54	35	10	4	4	5	10	2		-			
	55,421	51,318	57,582	48,638	72,960	54,114	47,857	÷ *	-			
55 - 59	23	2	4	4	6	2	3	2	-			
•••••	57,411	57,283	42,604	50,947	59,337	57,785	76,924	\$64,660	-	*		
60 - 64	8	1	2		1	2	1	1	-			
	57,866	39,912	43,429		55,781	53,927	78,600	93,924	-			
65 - 69	3	1	1	1			* *	* *	-	-		
	56,351	74,508	5,702	88,843					-			
70 & over			~ ~	* *					-			
						• •	aa	· -	-	w		
Total	214	73	44	30	30	25	9	3		÷ - ·		
	\$53,398	\$49,716	\$51,897	\$53,745	\$52,963	\$61,449	\$61,513	\$74,415	-			

#### EXHIBIT B (continued)

Members in Active Service During Year Ended December 31, 2003 By Age, Years of Service, and Average Annualized Monthly Compensation Rate<sup>(1)</sup> for December 2003

#### ii. General Tier 1 Enhanced

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	Years of Service											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over		
Under 25	10	10										
	\$37,276	\$37,276						~ ~				
25 - 29	39	30	9									
	53,340	51,477	\$59,548	* *	~ ~	~ ~			* *	* *		
30 - 34	60	37	15	8								
	62,845	61,120	67,728	\$61,663								
35 - 39	101	40	25	25	11		* *		* *			
	65,811	60,471	67,288	66,383	\$80,576			~ •				
40 - 44	123	25	34	25	24	14	l					
	69,970	63,107	66,098	72,791	82,148	\$66,625	\$57,239		10 M			
45 - 49	251	40	24	40	39	53	53	2				
	71,095	70,032	69,462	74,472	76,712	75,501	62,002	\$59,078				
50 - 54	347	30	20	33	33	59	110	57	5			
	70,743	63,085	65,025	77,614	83,058	71,654	71,310	65,554	\$48,879			
55 - 59	259	14	12	18	30	38	63	68	16			
	79,178	65,944	70,389	69,028	80,007	79,494	89,272	80,126	62,682			
60 - 64	85	2	7	10	8	13	13	22	7	3		
00 01	72,753	45,228	69,351	59,459	91,253	60,823	74,163	80,312	80,186	\$66,830		
65 - 69	9	1			1	1	6					
	79,810	49,110			21,333	133,803	85,674					
70 & over	6	1			1		2	2				
	79,110	8,160		* *	82,597		145,075	46,877	* *			
Total	1,290	230	146	159	147	178	248	151	28			
	\$71,127	\$60,608	\$66,980	\$71,383	\$80,440	\$73,636	\$74,919	\$73,933	\$64,594	\$66,83		

(1) Includes 8 members without a pay rate for December 2003. An annual amount of \$50,000 was used for these members.

#### **EXHIBIT B (continued)**

Members in Active Service During Year Ended December 31, 2003 By Age, Years of Service, and Average Annualized Monthly Compensation Rate<sup>(1)</sup> for December 2003

#### iii. General Tier 2

	Years of Service											
Age	Total 0-4		Total 0-4		5-9	10-14	10-14 15-19		25-29	30-34	35 & over	
Under 25	I	1				* *	* *					
	\$38,832	\$38,832					* *	÷ •				
25 - 29	15	15			~ ~							
	59,105	59,105				* *	* *					
30 - 34	30	28	2	~ ~				* *				
	63,037	61,544	\$83,943									
35 - 39	47	44	**	3								
	67,687	68,278	~ ~	\$59,022								
40 - 44	51	44	4	2	1				÷ •			
	69,467	69,090	57,855	91,097	\$89,237							
45 - 49	59	48	6	4	1	** **						
	69,544	66,856	77,143	86,833	83,793				** **			
50 - 54	48	45	2	~~~~	I							
	69,626	68,803	73,641		98,642	~ ~						
55 - 59	22	20	1				I					
	73,735	71,854	81,841		~ -		\$103,238					
60 - 64	11	7	1	No.	ł		I					
	78,079	75,968	77,532	97,290	64,987		87,288					
65 - 69	l			1		* *						
0 ()/	95,613			95,613			• •					
Total	285	252	16	11	4		2					
	\$68,640	\$67,329	\$73,051	\$81,772	\$84,165	* *	\$95,263					

(1) Includes 14 members without a pay rate for December 2003. An annual amount of \$50,000 was used for these members.

#### EXHIBIT B (continued)

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Members in Active Service During Year Ended December 31, 2003 By Age, Years of Service, and Average Annualized Monthly Compensation Rate for December 2003

#### iv. General Tier 3 Non-Enhanced

				Year	s of Servi	ce			
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & over
Under 25									
	**		* *						
25 - 29									
30 - 34	2		2						
	\$65,878		\$65,878						
35 - 39	11	1	6	4					
	83,511	\$61,052	74,733	\$102,292					
40 - 44	22	I	6	11	4				
	81,566	83,762	76,161	86,886	\$74,491	P+ W			
45 - 49	58		22	22	14				
	84,071		75,632	84,658	96,411				
50 - 54	50	I	17	17	10	5			
••••	83,408	96,465	76,084	80,296	95,690	\$91,716			
55 - 59	40	2	13	11	7	7			
	84,494	71,628	80,757	83,546	92,490	88,603			
60 - 64	20	1	7	4	7	1			
00 01	84,809	44,491	89,261	75,890	88,888	101,094	* *		
65 - 69	2		1		1				
01 UP	82,654	* *	74,074		91,233	** **			
70 & over	1		1				~ ~		
	50,674		50,674						
Total	206	6	75	69	43	13			
	\$83,414	\$71,504	\$77,252	\$84,275	592,221	\$90,761			

#### **EXHIBIT B (continued)**

Members in Active Service During Year Ended December 31, 2003 By Age, Years of Service, and Average Annualized Monthly Compensation Rate<sup>(1)</sup> for December 2003

#### v. General Tier 3 Enhanced

	Years of Service											
Age	Total	0-4	5-9	10-14 15-19		20-24	25-29	30-34	35 & over			
Under 25	98	98										
	\$37,383	\$37,383										
25 - 29	371	331	40									
	46,093	45,215	\$53,358	~ ~			* *					
30 - 34	586	425	143	16	2	* *						
	54,291	53,159	58,126	\$50,242	\$53,046		* *					
35 - 39	768	394	221	118	34	1						
	56,808	51,653	61,917	63,813	59,268	\$48,853						
40 - 44	947	386	217	184	112	48						
	58,516	51,943	57,751	66,560	69,947	57,319						
45 - 49	948	358	195	169	134	83	8	1				
	58,162	47,427	56,529	62,926	74,751	70,372	\$73,957	\$51,818				
50 - 54	904	279	211	179	139	81	11	4				
	57,880	49,127	54,014	61,960	68,231	62,770	103,224	106,405				
55 - 59	717	214	135	140	119	81	18	9	1			
	60,929	47,815	58,622	60,377	67,231	73,549	129,387	82,369	\$58,874			
6() - 64	346	98	76	72	63	29	3	4	I			
	57,174	53,702	51,002	57,998	62,212	67,889	68,318	74,673	75,764			
65 - 69	79	14	29	22	10	4						
	54,509	51,666	54,670	55,545	52,951	61,497						
70 & over	19	5	4	5	3	2						
	61,679	50,740	39,551	89,320	67,626	55,258						
Total	5,783	2,602	1,271	905	616	329	40	18	2			
	\$56,723	\$49,493	\$57,133	\$62,545	\$68,358	\$66,894	\$106,526	\$84,303	\$67			

(1) Includes 66 members without a pay rate for December 2003. An annual amount of \$50,000 was used for these members.

#### **EXHIBIT B (continued)**

Members in Active Service During Year Ended December 31, 2003 By Age, Years of Service, and Average Annualized Monthly Compensation Rate<sup>(1)</sup> for December 2003

#### vi. Safety Non-Enhanced

	Years of Service									
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30 & over		
Under 25	3	3		• •		- ···		-		
	\$46,221	\$46,221						-		
25 - 29	16	16	* *					-		
	53,364	53,364		* *		64 10A		-		
30 - 34	13	11	2					-		
	55,391	56,169	\$51,114	* -		w		-		
35 - 39	11	4	2	3	2	** **		-		
	77,585	53,225	51,114	\$109,790	\$104,470			-		
40 - 44	11	4	3	1	l	2		-		
	72,259	46,384	50,425	120,429	96,749	\$120,429	<b>.</b>	-		
45 - 49	10	3	2	* *	2	2	1	-		
	82,537	44,808	77,792		101,064	114,498	\$104,241	-		
50 - 54	5	1			1	2		-		
20 01	98,000	117,017	51,114		120,429	100,721				
55 - 59	2		ł		1			-		
	76,974		51,114		102,834			-		
60 - 64	3	2	I		* *	~ ~		-		
00 01	71,895	82,286	51,114					-		
65 & over	∞ m.	 	··					-		
Total	74	44	12	4	7	6		-		
ruai	\$68,187	\$55,109	\$55,388	\$112,449		\$111,883	\$104,241	-		

(1) Includes 1 member without a pay rate for December 2003. An annual amount of \$70,000 was used for this member.

#### **EXHIBIT B (continued)**

Members in Active Service During Year Ended December 31, 2003 By Age, Years of Service, and Average Annualized Monthly Compensation Rate<sup>(1)</sup> for December 2003

#### vil. Safety Enhanced

Years of Service									
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-35	35 & over
Under 25	29	29	** **		* *				
	\$65,543	\$65,543				* *			-
25 - 29	171	154	17			** **	ter ter		-
	66,744	65,577	\$77,324	• •	<b></b>				-
30 - 34	303	169	116	18					-
	74,472	70,101	78,465	\$89,779			*		-
35 - 39	325	80	107	91	45	2			
	81,993	70,408	78,313	89,144	\$96,427	\$92,086			-
40 - 44	284	39	33	70	121	21			-
	88,452	67,622	79,563	89,353	95,256	98,893			
45 - 49	236	15	22	20	70	83	26		-
	94,092	69,857	80,883	88,592	90,652	100,012	\$113,848		-
50 - 54	167	11	6	13	27	45	53	12	-
	93,382	78,898	74,173	82,384	91,054	90,518	101,947	\$106,329	-
55 - 59	85	9	7	5	13	19	18	13	
	87,858	70,547	75,438	84,489	81,608	89,615	95,152	100,185	\$103,73
60 - 64	18	3	9	2	2		* *	1	
	70,466	64,279	67,085	67,481	74,677			103,730	83,73
65 & over	6		5	* -					-
	57,465		56,418		62,702		,		-
Total	1,624	509	322	219	279	170	97	26	
	\$82,838	\$68,487	\$77,826	\$88,507	\$92,983	\$96,105	\$103,876	\$103,157	\$93.73-

(1) Includes 8 members without a pay rate for December 2003. An annual amount of \$70,000 was used for these members.

#### **EXHIBIT C**

Average Monthly Benefit and Membership Distribution of Retired Members and Beneficiaries i. General Tier 1 as of December 31, 2003

Age				Years of Retirement							
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39 4	10 & over	
Under 25	10	4	4	1				1		-	
	\$1,493	\$2,593	\$482	\$1,147		* *	~ ~	\$1,483		-	
25 - 29	7		3	3		1	* -			-	
	802		447	1,193		\$694				-	
30 - 34	4		2	1				~ ~		-	
	640	293	763	743	~ ~	* *	··	** **		-	
35 - 39	7	I	4	2						-	
	761	1,200	520	1,025						-	
40 - 44	13	4	5	2	2	* *	~ ~	M. M.		-	
	1,124	1,237	1,228	1,079	\$682		* -			-	
45 - 49	33	12	8	5	5	2	~ _	I		-	
	1,420	1,573	1,649	1,607	756	1,358	<b></b>	272		-	
50 - 54	129	87	13	16	4	4	1	4		-	
	1,785	1,910	2,034	1,541	1,123	1,279	\$1,179	553		-	
55 - 59	342	203	86	18	15	10	8	2		-	
	2,483	3,094	1,582	1,935	1,846	1,115	1,209	800		-	
60 - 64	459	211	129	71	25	16	4	2			
00 04	2,798	3,840	2,315	1,435	1,243	1,943	1,512	1,402		\$2,739	
65 - 69	547	[2]	184	121	91	18	4	4	4		
0.0	2,666	3,962	3,102	2,130	1,192	1,591	1.220	1,011	\$1,132	-	
70 - 74	610	22	126	201	146	82	22	6	4		
10 11	2,126	2,155	2,995	2,568	1,558	981	1,508	1,239	1,633	82	
75 - 80	614	3	15	154	209	149	74	7	2		
10 00	1,936	4,495	2,733	2,468	2,081	1,403	1,318	1,150	1,776	1,074	
80 - 84	590	6	4	31	157	224	133	30	5	-	
	1,810	1,631	3,074	2,011	1,999	1,835	1,629	1,218	1,022	-	
85 - 89	285			2	15	108	95	57	5		
	1,559	- ~	~ ~	606	1,785	1,597	1,662	1,365	1,331	53	
90 & over	116			1		6	49	40	15	:	
···	1,429			1,923		1,186	1,669	1,445	929	65:	
Total	3,766 \$2,144	675 \$3,245	583 \$2,553	629 \$2,224	669 \$1.764	620 \$1,548	390 \$1,561	154 \$1,299	35 \$1,152	1 \$86:	

Note: Total Retired Benefit \$8,075,685, average age 72.0 and average years retired 15.3.

					Years of Re	etirement				
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	4	2	2					**	* *	· -
	\$401	\$454	\$348	80° M						· -
25 - 29	4		2	2		~ ~				
	683		530	\$835			~ -			
30 - 34	11	1	5	5						-
	747	988	830	617						-
35 - 39	3		1	2				~ -		-
	1,195		1,791	897						
40 - 44	2		2	14. br		~ -				
	1,838		1,838			~ ~				-
45 - 49	8	1	4	3	- ~					· -
	1,080	1,212	1,152	940						
50 - 54	28	19	7	1	1	* *				-
	785	564	1,201	1,707	\$1,166		**			
55 - 59	83	33	41	6	3	~ ~				
	807	715	769	1,363	1,241			*1 *		-
60 - 64	91	33	47	11						
	853	846	884	742	·	~ ~		• •		. <b>.</b>
65 - 69	129	46	61	17	5					
	915	940	926	804	922	* *				. <u> </u>
70 - 74	99	16	47	29	4	3	- •			-
	895	925	932	920	404	\$581	* *		~ *	-
75 - 80	52	4	20	22	4	2		* *		· •
	767	696	789	726	672	1,323		* *		-
80 - 84	14		3	10	- *	1				-
	874		402	937		1,666		* -		
85 - 89	2			l	1			* *		-
	141			76	207		* *		* *	-
90 & over			* *		- *			* *		
	** **									-
Total	530	155	242	109	18	6		~ ~		-
	\$857	\$814	5887	\$855	\$778	\$1,009				-

Average Monthly Benefit and Membership Distribution of Retired Members and Beneficiaries

Note: Total Retired Benefit \$454,099, average age 64.6 and average years retired 7.4.

EXHIBIT C (continued)

#### EXHIBIT C (continued)

Average Monthly Benefit and Membership Distribution of Retired Members and Beneficiaries iii. General Tier 3 as of December 31, 2003

		Years of Retirement								
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	6	6	~ -					~ ~	-	
	\$1,212	\$1,212		÷ -					-	
25 - 29		~ ~							-	• •
		·· -				* *		• -	-	
30 - 34	3	3					<del>~</del> +		٣	
	850	8,50		* *			** *		-	
35 - 39	2	2							-	
	835	835	• •		~ ~				*	
40 - 44	3	3					• •		-	
	1,671	1,671							-	
45 - 49	8	8	. *				× -	** **	~	~ <del>-</del>
	1,852	1,852		* *		*****			-	
50 - 54	46	46				~ ~			-	
	1,030	1,030							-	
55 - 59	78	78				24 An			-	
	1,273	1,273				** **		M 80	-	
60 - 64	103	102	1	* *	- ~				•	* -
	1,546	1,557	\$429	~ -					-	
65 - 69	80	80	* *					~ ~	-	- ~
	1,170	1,170				* *			-	
70 - 74	14	14	***		- *			* =	-	
	1,225	1,225			- *		* *	• -	-	
75 - 80	3	3				**			-	
	1,044	1,044	<b></b>		- *			• •	-	
80 - 84	1	1		* *					-	
	407	407			. *		* *			
85 - 89		* -		~ ~		* -			-	
			* -						-	
90 & over									-	
Total	347	346	1	* *						
i Utar	\$1,301	\$1,304	\$429						-	

Note: Total Retired Benefit \$451,598, average age 59.9 and average years retired 2.1.

#### EXHIBIT C (continued)

Average Monthly Benefit and Membership Distribution of Retired Members and Beneficiaries iv. Safety as of December 31, 2003

					Years of Re	etirement				
Age	Total	0-4	5- <del>9</del>	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	5	2	1	2		~ ~				÷ •
	\$2,743	\$4,746	\$3,034	\$593			w -		* *	
25 - 29	3	1	au Mi	2			* *			
	1,476	3,179		625			~ ~			
30 - 34	12	9		2		1		** **	~ -	
	2,367	2,647		1,344		\$1,895				
35 - 39	17	10	4	3						
	2,758	3,333	2,861	705		• •		* *		
4() - 44	42	23	13	6			~ ~			
	2,935	3,061	2,942	2,437			* *		* *	
45 - 49	43	21	10	9	3			~ -		• •
	2,719	2,941	2,413	2,533	\$2,749			* *		
50 - 54	135	82	26	14	10	1	ł	1		
	4,347	5,623	2,369	2,504	2,339	2,172	\$2,610	\$989		
55 - 59	311	194	51	28	17	13	6	2	* *	
	4,953	6,303	3,083	2,633	2,113	2,355	2,584	2,267	~ ~	
60 - 64	237	75	84	52	13	5	6	I	1	
	5,081	5,665	6,026	4,081	2,084	2,470	2,864	1,840	\$2,347	
65 - 69	175	13	38	69	33	14	5	2	1	
	4,392	3,276	4,060	5,807	3,490	2,686	2,160	2,654	2,205	
70 - 74	142	I	14	25	43	34	21	3		1
	3,799	7,171	4,250	4,840	4,161	3,138	2,758	2,098		\$2,009
75 - 80	93		• •	3	i2	33	29	9	6	1
	3,547			1,893	4,224	4,282	3,337	2,069	2,463	2,044
80 - 84	55	* *			2	8	27	14	3	1
	3,947		<b></b>		2,743	4,493	4,667	3,030	1,559	2,574
85 - 89	19	~ ~					4	9	5	I
	2,672		÷ ~				4,563	2,554	1,706	989
∂0 & over	4	M. 10				~ ~	1	ł	1	I
	2,369	when when					2,792	3,700	2,206	779
Total	1,293 \$4,316	431 \$5,477	241 \$4,214	215 \$4,153	133 \$3,345	109 \$3,381	100 \$3,478	42 \$2,540	17 \$2,044	5 \$1,679

Note: Total Retired Benefit \$5,580,164, average age 62.4 and average years retired 11.8.

#### EXHIBIT D

Reconciliation of Participant Data - December 31, 2002 to December 31, 2003

	Active Participants	Vested Former Participants	Pensioners	Disableds	Beneficiaries	Total
Number as of December 31, 2002	9,611	1,067	3,781	835	1,003	16,297
New participants	609	45	0	0	0	654
Terminations – with vested rights <sup>(1)</sup>	-237	237	0	0	0	0
Contributions Refunds	-106	-26	0	0	0	-132
Retirements	-322	-41	363	0	0	0
New disabilities	-70	-6	-12	88	0	0
Return to work	19	-19	0	0	0	0
Died with or without beneficiary	-26	-9	-136	-29	41	-159
Data adjustments	2	_0	2	2	2	_0
Number as of December 31, 2003	9,476	1,248	3,998	896	1,042	16,660

(1) Includes terminated members due a refund of member contributions.



#### EXHIBIT E

Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended Dec	ember 31, 2003	003 Year Ended December 3		
Contribution income:					
Employer contributions	\$425,532,766*		\$57,474,043		
Employee contributions	51,602,939		26,605,875		
Other contributions	0		<u>36.520,204</u> **		
Net contribution income		\$477,135,705		\$120,600,122	
Investment income:					
Interest, dividends and other income	\$92,538,717		\$71,769,645		
Adjustment toward market value***	8,494,041		36,603,568		
Less investment and administrative fees	-17,612,746		<u>-15,228,443</u>		
Net investment income		83,420,012		<u>93.144.770</u>	
Total income available for benefits		\$560,555,717		\$213,744,892	
Less benefit payments:					
Benefits paid	-\$163,923,104		-\$140,096,811		
Healthcare benefits	0		-4,637,588		
Refunds of contributions	-1,036,599		-643,103		
Adjustments/transfers	-266,802		0		
Prior period adjustment	0		-3,072,951		
Net benefit payments		-\$165,226,505		-\$148,450,453	
Change in reserve for future benefits		\$395,329,212		\$65,294,439	
			1		

\* Includes proceeds of \$319,094,714 from Pension Obligation Bonds issued by the County in May 2003.

\*\* Equals the sum of additional contribution receivable for San Ramon Fire District (\$2,290,000) and for the final Paulson Settlement (\$34,230,204).

\*\*\* Equals the "non-cash" earnings on investments implicitly included in the Actuarial Value of Assets.

#### EXHIBIT F

**Table of Financial Information** 

	Year Ended Dec	ember 31, 2003	er 31, 2003 Year Ended December		
Cash equivalents		\$579,864,432		\$315,845,649	
Accounts receivable:					
Investment trades	\$327,267,439		\$25,493,428		
Investment income	11,562,167		10,460,868		
Employee and employer contributions	4,407,628		2,125,806		
Additional contributions*	32,983,632		36,520,204		
Total accounts receivable		376,220,866		74,600,306	
Investments:					
Stocks	\$1,610,790,020		\$925,505,259		
Bonds	1,137,809,868		1,088,353,355		
Real estate	309,831,014		266,628,365		
Other	61,323,636		48,009.023		
Total investments at market value		3.119.754.538		2,328,496,002	
Total assets		\$4,075,839,836		\$2,718,941,957	
Less accounts payable:	······································				
Investment trades	-\$477,723,512		-\$168,662,515		
Security lending	-207,255,813		-97,146,164		
Employer contributions unearned	-58,524,944		-35,483,940		
Other	-18.840.620		<u>-15,591,711</u>		
Total accounts payable		-\$762,344,889		-\$316,884,330	
Net assets at market value		<u>\$3,313,494,947</u>		<u>\$2,402.057.627</u>	
Net assets at actuarial value		\$3,550,800,728		<u>\$3,155,471,516</u>	
Net assets at valuation value		<u>\$3,538,721,957</u>		<u>\$2,977,641,567</u>	

\* Equals the sum of additional contribution receivables for San Ramon Fire District and the final Paulson Settlement.

	IIBIT G uarial Balance Sheet	<u>, , , , , , , , , , , , , , , , , , , </u>	<u></u>				
Act dete that ther to the	overview of your Plan's funding is given by an uarial Balance Sheet. In this approach, we first ermine the amount and timing of all future payments will be made by the Plan for current participants. We discount these payments at the valuation interest rate he date of the valuation, thereby determining their sent value. We refer to this present value as the	"liability" of the Plan. Second, we determine how this liability will be met. The actuarial "assets" include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employ normal cost contributions, and the present value of future employer amortization payments.					
As	sets	Basic	COL	Total			
1.	Total actuarial value of assets	\$2,374,133,266	\$1,164,588,691	\$3,538,721,957			
2.	Present value of future contributions by members	176,454,772	199,063,580	375,518,352			
3.	Present value of future employer contributions for:						
	(a) entry age normal cost	888,627,104	203,084,670	1,091,711,774			
	(b) unfunded actuarial accrued liability	353,943,456	248,724,325	602,667,781			
4.	Total actuarial assets	\$3,793,158,598	\$1,815,461,266	\$5,608,619,864			
Lia	abilities						
5.	Present value of retirement allowances payable to present						
	retired members	\$1,232,554,603	\$840,374,407	\$2,072,929,010			
6.	Present value of retirement allowances to be granted	2,560,603,995	975,086,859	3,535,690,854			
7.	Total actuarial liabilities	\$3,793,158,598	\$1,815,461,266	\$5,608,619,864			

#### EXHIBIT H

Summary of Reported Asset Information as of December 31, 2003

Reserves	Reserves				
Member Deposits <sup>(1)</sup>	\$255,755,850				
Member Cost of Living <sup>(1)</sup>	55,020,595				
Employer Advance (1)	941,615,281				
Employer Cost of Living <sup>(1)</sup>	628,089,811				
Retired Members <sup>(1)</sup>	1,096,454,015				
Retired Cost of Living <sup>(1)</sup>	407,626,515				
New Dollar Power Cost of Living Supplement and Pre-Fund <sup>(1)</sup>	35,759,327				
Smoothed Market Value Valuation <sup>(1)</sup>	135,142,694				
Post Retirement Death Benefit <sup>(2)</sup>	12,078,771				
Statutory Contingency (one percent) <sup>(2)</sup>	0				
Additional One Percent Contingency Designation <sup>(2)</sup>	0				
Contra Tracking Account <sup>(1)</sup>	(16,742,131)				
Total Allocated Reserves	\$3,550,800,728				
Market Stabilization Account	(237,305,781)				
Net market value	\$3,313,494,947				

(1) Included in valuation assets.

(2) Not included in valuation assets.

#### EXHIBIT I

#### Development of Unfunded Actuarial Accrued Liability

		Year Ended December 31, 2003
1.	Unfunded actuarial accrued liability at beginning of year	\$380,887,857
2.	Gross Normal cost at beginning of year	145,786,500
3.	Actual employer and member contributions	-162,246,991
4.	Interest (whole year on (1) plus half year on $(2) + (3)$ )	29,812,609
5.	Expected unfunded actuarial accrued liability at end of year	394,239,975
ó.	Actuarial (gain)/loss due to all changes:	
	a. Investment return	\$19,434,532
	<ul> <li>b. Delay in implementing new contribution rate</li> </ul>	11,090,287
	c. Salary increases	44,057,652
	d. Plan changes	4,571,577
	e. Change in assumptions	122,665,770
	f. Other experience (gain)/loss	6,607,988
	g. Total (gain)/loss	<u>208,427,806</u>
7.	Unfunded actuarial accrued liability at end of year	\$602.667,781

#### EXHIBIT J

#### Section 415 Limitations

Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for noncompliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of \$160,000 indexed for inflation. That limit is \$165,000 for 2004. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They may need to be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions. Limits are also affected by the "grandfather" election under Section 415(b)(10).

Benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

Contribution rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in actuarial gains as they occur.

#### EXHIBIT K

#### **Definitions of Pension Terms**

The following list defines certain technical terms for the convenience of the reader: Assumptions or Actuarial **Assumptions:** The estimates on which the cost of the Plan is calculated including: Investment return - the rate of investment yield which the Plan will earn (a) over the long-term future; Mortality rates — the death rates of employees and pensioners; life (b) expectancy is based on these rates; Retirement rates — the rate or probability of retirement at a given age; (c) Turnover rates — the rates at which employees of various ages are expected (d)to leave employment for reasons other than death, disability, or retirement. Normal Cost: The amount of contributions required to fund the benefit allocated to the current year of service. Actuarial Accrued Liability For Actives: The equivalent of the accumulated normal costs allocated to the years before the valuation date. **Actuarial Accrued Liability** The single sum value of lifetime benefits to existing pensioners. This sum takes For Pensioners: account of life expectancies appropriate to the ages of the pensioners and of the interest which the sum is expected to earn before it is entirely paid out in benefits. **Unfunded Actuarial Accrued** Liability: The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

Amortization of the Unfunded Actuarial Accrued Liability:	Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.
Investment Return:	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the market gains and losses to avoid significant swings in the value of assets from one year to the next.

#### EXHIBIT I

Supplementary Information Required by the GASB – Schedule of Employer Contributions

Plan Year Ended December 31	Annual Required Contributions	Actual Contributions	Percentage Contributed
1998	44,243,668	N/A	92.5%*
1999	52,565,912	N/A	93.7%*
2000	58,035,756	52,986,645	91.3%*
2001	58,642,407	55,182,505	94.1%*
2002	58,319,678	57,474,043	98.6%*
2003	108,728,047	108,728,047**	100.0%

\* The contribution percentage is less than 100% due to actions taken by the Board of Retirement to phase-in, over three years, increased contribution requirements associated with the significant actuarial assumption changes and the expansion of earnable compensation required by the "Ventura Decision".

\*\* Excludes Contra Costa County pension obligation bond proceeds of \$319,094,719.



#### EXHIBIT II

Supplementary Information Required by the GASB – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroli (c)	UAAL as a Percentage of Covered Payroll* [(b) - (a) / (c)]
12/31/1998	1,868,521,000	2,320,315,000	451,794,000	80.53%	411,748,000	109.73%
12/31/1999	2,137,554,000	2,433,614,000	296,060,000	87.83%	463,279,000	63.91%
12/31/2000	2,355,179,000	2,643,526,000	288,347,000	89.09%	488,384,000	59.04%
12/31/2001	2,613,220,000	2,983,551,000	370,331,000	87.59%	523,621,000	70.73%
12/31/2002	3,296,736,000	3,677,624,000	380,888,000	89.64%	580,415,000	65.62%
12/31/2003	3,538,722,000	4,141,390,000	602,668,000	85.45%	600,274,000	100.40%

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\* Not less than zero.

#### EXHIBIT III

#### Supplementary Information Required by the GASB

Valuation date	December 31, 2003			
Actuarial cost method	Entry Age Normal Actuarial Cost Method.			
Amortization method	Level percent of payroll for total unfunded liability 19 years (declining) for all UAAL Market value of assets less unrecognized returns in each of the last nine semi-annual accounting periods. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized semi-annually over a five-year period. The Actuarial Value of Assets is reduced by the value of the non-valuation reserves and designations			
Remaining amortization period				
Asset valuation method				
Actuarial assumptions:				
Investment rate of return	7.90%			
Attributed to Inflation	4.00%			
Projected salary increases*	6.41%			
Cost of living adjustments	Contingent upon CPI Increases with a 3% or 4% Maximum			
Plan membership:				
Retirees and beneficiaries receiving benefits	5,936			
Terminated participants entitled to, but not yet receiving benefits	1,248			
Active plan members	<u>9,476</u>			
Total	16,660			

\* Includes inflation at 4.00%, plus merit and longevity increases. See Exhibit IV for these increases.

#### EXHIBIT IV

Actuarial Assumptions and Actuarial Cost Method

#### **Post – Retirement Mortality Rates:**

Healthy:	For General Members: 1994 Group Annuity Mortality Table set forward one year.
	For Safety Members: 1994 Group Annuity Mortality Table set forward two years.
Disabled:	For General members: 1981 Disability Mortality Table (General) set back three years.
	For Safety members: 1994 Group Annuity Mortality Table set forward two years.
Employee Contribution Rate:	For General members: 1994 Group Annuity Mortality Table set forward one year weighted 30% male and 70% female.
	For Safety members: 1994 Group Annuity Mortality Table set forward two years weighted 85% male and 15% female.

#### **Termination Rates Before Retirement:**

		Mortality		
	General		Safety	
Age	Male	Female	Male	Female
25	0.07	0.03	0.07	0.03
30	0.08	0.04	0.08	0.04
35	0.09	0.05	0.09	0.06
40	0.12	0.08	0.13	0.08
45	0.17	0.10	0.19	0.11
50	0.29	0.16	0.32	0.17
55	0.49	0.26	0.56	0.29
60	0.90	0.51	1.01	0.58
65	1.62	0.97	1.80	1.08

All pre-retirement deaths are assumed to be non-service connected.

## \*segal

#### **Termination Rates Before Retirement (continued):**

.

	Rate (%) Disability					
Age	General Tier 1 <sup>(1)</sup>	General Tier 2 and 3 <sup>(2)</sup>	Safety <sup>(3)</sup>			
20	0.04	0.00	0.06			
25	0.11	0.02	0.16			
30	0.24	0.04	0.44			
35	0.36	0.08	0.84			
40	0.52	0.11	1.12			
45	0.66	0.17	1.56			
50	0.79	0.34	2.22			
55	0.94	0.56	2.50			
60	1.15	0.80	0.00			

<sup>(1)</sup> 70% of General Tier 1 disabilities are assumed to be duty disabilities. The other 30% are assumed to be ordinary disabilities.

<sup>(2)</sup> 25% of General Tier 2 and 3 disabilities are assumed to be duty disabilities. The other 75% are assumed to be ordinary disabilities.

<sup>(3)</sup> 100% of Safety disabilities are assumed to be duty disabilities.



#### **Termination Rates Before Retirement (continued):**

Withdrawal (< 5 Years of Service)				
Years of Service	General	Safety		
0	13.00	9.00		
i	7.00	6.00		
2	6.00	5.00		
3	5.00	4.00		
4	4.00	3.00		

Rate (%)

#### Withdrawal (5+ Years of Service) \*

Age	General	Safety			
20	4.00	3.00			
25	4.00	3.00			
30	4.00	2.78			
35	4.00	2.00			
40	3.84	1.46			
45	3.21	0.95			
50	1.52	0.00			
55	0.33	0.00			
60	0.00	0.00			

\* The member is assumed to receive the greater of the member's contribution balance or a deferred retirement benefit. No withdrawal is assumed after a member is eligible for retirement.





#### **Retirement Rates (Enhanced):**

For those members covered under the enhanced benefit formulas the following rates apply:

	Rate	(%)	
Age	Tier 1	Tier 3	Safety
50	3.00	3.00	30.00
51	3.00	3.00	25.00
52	5.00	5.00	25.00
53	10.00	5.00	25.00
54	15.00	10.00	30.00
55	20.00	10.00	45.00
56	20.00	10.00	45.00
57	25.00	10.00	50.00
58	25.00	10.00	50.00
59	25.00	10.00	50.00
60	25.00	15.00	100.00
61	30.00	15.00	100.00
62	30.00	25.00	100.00
63	30.00	25.00	100.00
64	30.00	30.00	100.00
65	35.00	35.00	100.00
66	35.00	35.00	100.00
67	35.00	35.00	100.00
68	35.00	35.00	100.00
69	35.00	35.00	100.00
70	100.00	100.00	100.00

\*segal



#### **Retirement Rates (Non-enhanced):**

For those members not covered under the enhanced benefit formulas the following rates apply:

		Rate (%)		
Age	Tier 1	Tier 2	Tier 3	Safety
50	3.00	3.00	2.00	1.00
51	3.00	3.00	2.00	1.00
52	3.00	3.00	2.00	1.00
53	3.00	3.00	2.00	1.00
54	3.00	3.00	2.00	1.00
55	10.00	5.00	2.00	2.00
56	10.00	5.00	4.00	2.00
57	10.00	5.00	4.00	3.00
58	10.00	5.00	4.00	4.00
59	10.00	5.00	5.00	20.00
60	25.00	15.00	5.00	17.00
61	15.00	15.00	5.00	17.00
62	40.00	15.00	15.00	18.00
63	25.00	10.00	10.00	20.00
64	30.00	25.00	20.00	100.00
65	40.00	25.00	20.00	100.00
66	35.00	25.00	20.00	100.00
67	35.00	25.00	20.00	100.00
68	35.00	40.00	35.00	100.00
69	35.00	40.00	50.00	100.00
70	100.00	100.00	100.00	100.00

....

Retirement Age and Benefit for Deferred Vested Members:	For current deferred vested members, we make the following retirement assumption:
	General Age:58Safety Age:55
	We assume that 50% of future deferred vested members are reciprocal. For reciprocals, we assume 6.00% compensation increases per annum.
Future Benefit Accruals:	1.0 year of service per year for the full-time employees. Continuation of current partial service accrual for part-time employees.
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
Inclusion of Deferred Vested Members:	All deferred vested members are included in the valuation.
Percent Married:	80% of male members; 55% of female members.
Age of Spouse:	Female (or male) spouses are 3 years younger (or older) than their spouses.
Conversion of Prior Tier 2 Service:	100% of all eligible Tier 2 members will elect to convert to (non-enhanced) Tier 3 after five years of service.
Tier 3 Members Converting Prior Tier 2 Service:	10% of all eligible Tier 3 members will convert their prior Tier 2 service to Tier 3 service.
Offsets by Other Plans of the Employer for Disability Benefits:	The Plan requires members who retire because of disability from Tier 2 and Tier 3 to offset the Plan's disability benefits with other Plans of the employer. We have not assumed any offsets in this valuation.

Terminal Pay Assumptions:	The following assumptions for terminal pay as a percentage of final average pay are used:
	General Tier 1: 11.50% General Tier 2: 3.25%
	General Tier 38.50%Safety:11.50%
	For determining the cost of the basic benefit (i.e. non-COLA component), the cost of this pay element is currently recognized in the valuation as an employer only cost and does not affect member contribution rates.
Service From Unused Sick Leave Conversion:	The following assumptions for service converted from unused sick leave as a percentage of service at retirement are used:
	Service Retirements:
	General:1.00%Safety:2.00%
	Disability Retirements:
	General:0.00%Safety:1.00%
	Pursuant to Section 31641.01, the cost of this benefit will be charged only to employers and will not affect member contribution rates.
Net Investment Return:	7.90%
Employee Contribution Crediting Rate:	7.90%
Consumer Price Index:	Increase of 4.00% per year; retiree COLA increases due to CPI subject to a 3.0% maximum change per year except for Tier 3 disability benefits and Tier 2 benefits which are subject to a 4.0% (valued as 3.75% increase) maximum change per year.

	Annual	Rate of Compensation	Increase	
	Inflation: 4.00%,	Plus the following M	erit and Longevity	
	Age	General	Safety	
	20	11.80%	9.20%	
	25	6.40%	7.60%	
	30	4.70%	5.00%	
	35	3.50%	3.00%	
	40	2.80%	2.20%	
	45	2.10%	1.80%	
	50	1.80%	1.30%	
	55	1.50%	1.00%	
	60	1.40%	0.00%	
Actuarial Value of Assets:	Market value of ass	ets less unrecognized	returns in each of the	e last nine semi-annual
Actuarial Value of Assets:	Market value of ass accounting periods. market return and the annually over a five	ets less unrecognized	returns in each of the is equal to the differ the market value, and tuarial Value of Asse	e last nine semi-annual rence between the actual d is recognized semi-
Actuarial Value of Assets: Actuarial Cost Method:	Market value of ass accounting periods. market return and the annually over a five value of the non-va Entry Age Normal participant would h existence. Normal individual basis and	ets less unrecognized Unrecognized return ne expected return on e-year period. The Ac luation reserves and de Actuarial Cost Method ave commenced partic Cost and Actuarial Ac I are allocated by salar ual rate had always be	returns in each of the is equal to the differ the market value, and tuarial Value of Asse esignations. d. Entry Age is the a sipation if the plan hat crued Liability are ca- ies, with Normal Co	e last nine semi-annual rence between the actual d is recognized semi- ets is reduced by the nge at the time the ad always been in

#### EXHIBIT V

#### **Summary of Plan Provisions**

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

mbership Eligibility:	
General Tier 1	All General members hired before July 1, 1980 and electing not to transfer to Tier 2 Plan. General members who are hired after July 1, 1980 and work for specific employers are placed in Tier 1.
General Tier 2	All General members hired on or after August 1, 1980 and all General members hired before July 1, 1980 electing to transfer to the Tier 2 Plan. Effective October 1, 2002, for the County, Tier 2 will be eliminated and all County employees (excluding CNA employees) in Tier 2 will be placed in Tier 3.
General Tier 3	Tier 2 members can elect Tier 3 coverage (for future service) effective on the later of October 1, 1998 or the day after achieving 5 years of service. All County General members (excluding CNA employees) hired on or after October 1, 2002 will be placed in Tier 3.
Safety	All Safety members.

#### Final Compensation for Benefit Determination:

General Tier 1, Tier 3, and Safety	Highest consecutive twelve months of compensation earnable. (FAS1)
General Tier 2	Highest consecutive thirty-six months of compensation earnable. (FAS3)
Social Security Primary Insurance A	mount:

General Tier 2 Estimated Social Security award at age 62 assuming level future earnings. (PIA)

Service:						
General Tier 1 and 3	Years of service. (	Years of service. (Yrs)				
General Tier 2	Years of service up	Years of service up to a maximum of 30 years. (Yrs30)				
Service Retirement						
Eligibility:						
General	Age 50 with 10 ye service, regardless	ars of service, or age 70 regardless of service, or after 30 years of of age.				
Safety		Age 50 with 10 years of service, or age 70 regardless of service, or after 20 years of service, regardless of age.				
Benefit Formula:						
General Tier 1 and Tier 3 (No enhanced)(§31676.11)	on- Retirement Age	Benefit Formula				
	50	(1.24% xFAS1 - 1/3x1.24% x\$350x12) xYrs				
	55	(1.67%xFAS1 – 1/3x1.67%x\$350x12)xYrs				
	60	(2.18%xFAS1 – 1/3x2.18%x\$350x12)xYrs				
	62	(2.35%xFAS1 – 1/3x2.35%x\$350x12)xYrs				
	65	(2.61%xFAS1 – 1/3x2.61%x\$350x12)xYrs				
Maximum Benefit 100% of F	ASI					
General Tier 2(§31752)	50	(0.83%xFAS3xYrs – 0.57%xYrs30xPIA)				
	55	(1.13%xFAS3xYrs – 0.87%xYrs30xPIA)				
	60	(1.43%xFAS3xYrs – 1.37%xYrs30xPIA)				
	62	(1.55%xFAS3xYrs - 1.67%xYrs30xPIA)				
	65	(1.73%xFAS3xYrs – 1.67%xYrs30xPIA)				

#### **Benefit Formula:**

Safety (Non-en	hanced)(§31664)	50	(2.00%xFAS1xYrs)
		55	(2.62%xFAS1xYrs)
		60	(2.62%xFAS1xYrs)
Maximum Ben	efit 100% of FAS1		
General Tier 1 (Enhanced) (§2		Retirement Age	Benefit Formula
		50	(1.43%xFAS1 – 1/3x1.43%x\$350x12)xYrs
		55	(2.00%xFAS1 – 1/3x2.00%x\$350x12)xYrs
		60	(2.26%xFAS1 – 1/3x2.26%x\$350x12)xYrs
		62	(2.37%xFAS1 – 1/3x2.37%x\$350x12)xYrs
		65	(2.42%xFAS1 - 1/3x2.42%x\$350x12)xYrs
Maximum Ben	efit 100% of FAS1		
Safety (Enhanc	red)(\$31664.1)	50	(3.00%xFAS1xYrs)
		55	(3.00%xFAS1xYrs)
		60	(3.00%xFAS1xYrs)
Maximum Ben	efit 100% of FAS1		
Maximum Benefit:	100% of Highest	Average Compensati	on (§31664.1, §31676.16).

Ordinary Disability:	
General Tier 1	
Eligibility	Five years of service (§31720).
Benefit Formula	1.5% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 65, but total benefit cannot be more than one-third of Final Compensation (§31727).
General Tier 2 and General Tie	r 3
Eligibility	Ten years of service and definition of disability is more strict than Tier 1 Plan (§31720.1).
Benefit Formula	40% of Final Compensation plus 10% of Final Compensation used in the benefit determination for each minor child (maximum of three) (§31727.01).
Offset	Disability benefits are offset by other plans of the employer except Workers Compensation and Social Security.
Safety	
Eligibility	Five years of service (§31720).
Benefit Formula	1.8% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 55, but total benefit cannot be more than one-third of Final Compensation (§31727.2).
ine-of-Duty Disability:	
General Tier 1 and Safety	
Eligibility	No age or service requirements (§31720).
Benefit Formula	50% of the Final Compensation or Service Retirement benefit, if larger (§31727.4).
General Tier 2 and General Tie	r 3
Eligibility	No age or service requirements (§31720).
Benefit Formula	40% of Final Compensation plus 10% of Final Compensation for each minor child (maximum of three) (§31727.01).
Offset	Disability benefits are offset by other plans of the Employer except Workers Compensation and Social Security.

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e-Retirement Death:	
General Tier 1 and Tier 3, a	and Safety
Eligibility - A	None.
Benefit - A	Refund of employee contributions with interest plus one month's compensation for each year of service to a maximum of six month's compensation (§31781); 50% of Final Compensation payable to spouse if Line of Duty death (§31787).
	OR
Eligibility - B	Five years of service.
Benefit - B	Option 2 (100% continuation) of Ordinary Disability benefit payable to designated beneficiary.
Death in line of duty	50% of Final compensation.
General Tier 2	
Eligibility - A	None.
Benefit - A	Refund of employee contributions with interest plus \$2,000 lump sum benefit offset by any Social Security payment. (\$31781.01); If a Line of Duty death then 60% of Service or Disability Retirement Benefit (minimum benefit is 24% of Final Compensation) plus, for each minor child, 10% of the allowance otherwise paid to the member. Minimum family benefit is 60% of the member's allowance. Maximum family benefit is 100% of member's allowance.
	OR
Eligibility - B	Ten years of service.
Benefit - B	Option 2 (100% continuation) of Ordinary Disability benefit payable to designated beneficiary.



#### **Death After Retirement:**

General Tier 1 and Tier 3, and Sa	fety				
Service or Ordinary Disability Retirement	60% of member's unmodified allowance continued to eligible spouse. An eligible spouse is a surviving spouse who was married to the member one year prior to member's retirement or at least two years prior to the date of death and has attained age 55 on or prior to the date of death (§31760.2). \$5,000 lump sum benefit payable to member's beneficiary (§31789.12).				
Line-of-Duty Disability	100% of members allowance continued to eligible spouse (§31786).				
General Tier 2					
Service or					
Disability Retirement	60% of member's unmodified allowance continued to eligible spouse plus 10% of allowance to each minor child. Minimum benefit is 60% of allowance. Maximum benefit is 100% of allowance. \$7,000 lump sum benefit less any Social Security Lump sum payment payable to member's beneficiary.				
Withdrawal Benefits:					
Less than Five Years of Service	Refund of accumulated employee contributions with interest or earned benefit at age 70(§31628).				
Five or More Years of Service	If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire (\$31700).				
Post-retirement Cost-of-Living Benefits:					
General Tier 1 and Tier 3,					
and Safety	Future changes based on Consumer Price Index to a maximum of 3% per year, excess "banked." Tier 3 disability benefits have a maximum of 4% per year.				
General Tier 2	Future changes based on Consumer Price Index to a maximum of 4% per year, excess "banked."				
County Contributions:	Determined by the Entry Age Normal Cost method. The total Unfunded Actuarial Accrued Liability is being funded as a level percent of payroll over the nineteen-year period as of December 31, 2003.				

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Member Contributions:	Please refer to Appendix A for the specific rates.
General Tier 1 and Tier 3 (Non-enhar	nced)
Basic	Provide for one-half of the §31676.11 benefit at age 55.
Cost-of-Living	Provide for one-half of future Cost-of-Living costs.
General Tier 2	
Basic	40% of the full §31676.11 employee contribution rate.
Cost-of-Living	Provide for one-half of future Cost-of-Living costs.
Safety (Non-enhanced)	
Basic	Provide for one-half of the §31664 benefit at age 50.
Cost-of-Living	Provide for one-half of future Cost-of-Living costs.
General Tier 1 and Tier 3 (Enhanced)	
Basic	Provide for an average annuity at age 60 equal to 1/120 of FAS1.
Cost-of-Living	Provide for one-half of future Cost-of-Living costs.
Safety (Enhanced)	
Basic	Provide for an average annuity at age 50 equal to 1/100 of FAS1.
Cost-of-Living	Provide for one-half of future Cost-of-Living costs.
Other Information:	Transfers from the Tier 1 Plan to the Tier 2 Plan were made on an individual voluntary irrevocable basis. Credit is given under the Tier 2 Plan for future service only. The Cost-of-Living maximum is 4% only for the credit under the Tier 2 Plan. Transferred Tier 2 Plan members keep the five-year requirement for nonservice-connected disability. Those who were members before April 1, 1973 and all safety under the enhanced benefit formula will be exempt from paying member contributions after 30 years of service.
• • •	olan provisions is designed to outline principle plan benefits as interpreted for purposes of If the Association should find the plan summary not in accordance with the actual

provisions, the Association should alert the actuary so they can both be sure the proper provisions are valued.

\* SEGAL

#### Appendix A

**Member Contribution Rates** 

General Tier 1 (Non-enhanced) Members' Contribution Rates for Members not receiving Benefits under 2% at 55 from the December 31, 2003 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Recommended Assumptions						
	Ba	sic	COLA		Total	
Entry Age	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
15	5.17%	7.76%	2.86%	4.29%	8.03%	12.05%
16	5.12%	7.68%	2.83%	4.24%	7.95%	11.92%
17	5.07%	7.60%	2.80%	4.20%	7.87%	11.80%
18	5.02%	7.53%	2.77%	4.16%	7.79%	11.69%
19	4.98%	7.47%	2.75%	4.13%	7.73%	11.60%
20	4.95%	7.42%	2.73%	4.10%	7.68%	11.52%
21	4.92%	7.38%	2.72%	4.08%	7.64%	11.46%
22	4.89%	7.34%	2.71%	4.06%	7.60%	11.40%
23	4.88%	7.32%	2.70%	4.05%	7.58%	11.37%
24	4.87%	7.31%	2.69%	4.04%	7.56%	11.35%
25	4.87%	7.30%	2.69%	4.03%	7.56%	11.33%
26	4.87%	7.30%	2.69%	4.03%	7.56%	11.33%
27	4.87%	7.30%	2.69%	4.03%	7.56%	11.33%
28	4.87%	7.31%	2.69%	4.04%	7.56%	11.35%
29	4.88%	7.32%	2.70%	4.05%	7.58%	11.37%
30	4.89%	7.34%	2.71%	4.06%	7.60%	11.40%
31	4.91%	7.36%	2.71%	4.07%	7.62%	11.43%
32	4.93%	7.39%	2.72%	4.08%	7.65%	11.47%
33	4.95%	7.42%	2.73%	4.10%	7.68%	11.52%
34	4.97%	7.46%	2.75%	4.12%	7.72%	11.58%
35	5.00%	7.50%	2.76%	4.14%	7.76%	11.64%
36	5.03%	7.54%	2.78%	4.17%	7.81%	11.71%
37	5.06%	7.59%	2.79%	4.19%	7.85%	11.78%
38	5.09%	7.64%	2.81%	4.22%	7.90%	11.86%

#### General Tier 1 (Non-enhanced) Members' Contribution Rates for Members not receiving Benefits under 2% at 55 from the December 31, 2003 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

	Ва	sic	CC	DLA	Тс	otal
Entry Age	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
39	5.13%	7.70%	2.84%	4.26%	7.97%	11.96%
40	5.17%	7.75%	2.85%	4.28%	8.02%	12.03%
41	5.21%	7.81%	2.88%	4.32%	8.09%	12.13%
42	5.25%	7.87%	2.90%	4.35%	8.15%	12.22%
43	5.29%	7.94%	2.93%	4.39%	8.22%	12.33%
44	5.35%	8.02%	2.95%	4.43%	8.30%	12.45%
45	5.39%	8.08%	2.98%	4.47%	8.37%	12.55%
46	5.44%	8.16%	3.01%	4.51%	8.45%	12.67%
47	5.49%	8.23%	3.03%	4.55%	8.52%	12.78%
48	5.55%	8.32%	3.07%	4.60%	8.62%	12.92%
49	5.59%	8.39%	3.09%	4.64%	8.68%	13.03%
50	5.65%	8.47%	3.12%	4.68%	8.77%	13.15%
51	5.72%	8.58%	3.16%	4.74%	8.88%	13.32%
52	5.78%	8.67%	3.19%	4.79%	8.97%	13.46%
53	5.83%	8.74%	3.22%	4.83%	9.05%	13.57%
54	5.85%	8.77%	3.23%	4.85%	9.08%	13.62%
55	5.85%	8.77%	3.23%	4.85%	9.08%	13.62%
56	5.85%	8.77%	3.23%	4.85%	9.08%	13.62%
57	5.85%	8.77%	3.23%	4.85%	9.08%	13.62%
58	5.85%	8.77%	3.23%	4.85%	9.08%	13.62%
59	5.85%	8.77%	3.23%	4.85%	9.08%	13.62%
60	5.85%	8.77%	3.23%	4.85%	9.08%	13.62%
erest:	7.90%					
flation:	4.00%					
DLA Loading:	55.26%					
ortality:	GAM 1994	(30% Male and 70	% Female, with age	es set forward one y	ear)	

**Calculated Under Recommended Assumptions** 

## General Tier 1 (Enhanced) Members' Contribution Rates for Members receiving Benefits under 2% at 55 from the December 31, 2003 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

	Calculated Under Recommended Assumptions					
*****	Ba	sic	CC	PLA	Тс	otal
Entry Age	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
15	4.39%	6.59%	2.65%	3.97%	7.04%	10.56%
16	4.35%	6.53%	2.63%	3.94%	6.98%	10.47%
17	4.31%	6.47%	2.60%	3.90%	6.91%	10.37%
18	4.28%	6.42%	2.58%	3.87%	6.86%	10.29%
19	4.25%	6.38%	2.57%	3.85%	6.82%	10.23%
20	4.23%	6.35%	2.55%	3.83%	6.78%	10.18%
21	4.21%	6.32%	2.54%	3.81%	6.75%	10.13%
22	4.20%	6.30%	2.53%	3.80%	6.73%	10.10%
23	4.19%	6.29%	2.53%	3.79%	6.72%	10.08%
24	4.19%	6.28%	2.53%	3.79%	6.72%	10.07%
25	4.19%	6.28%	2.53%	3.79%	6.72%	10.07%
26	4.19%	6.28%	2.53%	3.79%	6.72%	10.07%
27	4.19%	6.29%	2.53%	3.79%	6.72%	10.08%
28	4.21%	6.31%	2.53%	3.80%	6.74%	10.11%
29	4.21%	6.32%	2.54%	3.81%	6.75%	10.13%
30	4.23%	6.34%	2.55%	3.82%	6.78%	10.16%
31	4.25%	6.37%	2.56%	3.84%	6.81%	10.21%
32	4.27%	6.40%	2.57%	3.86%	6.84%	10.26%
33	4.29%	6.43%	2.59%	3.88%	6.88%	10.31%
34	4.31%	6.47%	2.60%	3.90%	6.91%	10.37%
35	4.34%	6.51%	2.61%	3.92%	6.95%	10.43%
36	4.37%	6.55%	2.63%	3.95%	7.00%	10.50%
37	4.40%	6.60%	2.65%	3.98%	7.05%	10.58%
38	4.43%	6.65%	2.67%	4.01%	7.10%	10.66%
39	4.47%	6.70%	2.69%	4.04%	7.16%	10.74%
40	4.50%	6.75%	2.71%	4.07%	7.21%	10.82%
41	4.54%	6.81%	2.74%	4.11%	7.28%	10.92%

\*segal

## General Tier 1 (Enhanced) Members' Contribution Rates for Members receiving Benefits under 2% at 55 from the December 31, 2003 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

	Ba	Basic		LA	Το	otal
Entry Age	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
42	4.58%	6.87%	2.76%	4.14%	7.34%	11.01%
43	4.63%	6.94%	2.79%	4.18%	7.42%	11.12%
44	4.67%	7.00%	2.81%	4.22%	7.48%	11.22%
45	4.71%	7.07%	2.84%	4.26%	7.55%	11.33%
46	4.76%	7.14%	2.87%	4.30%	7.63%	11.44%
47	4.81%	7.21%	2.90%	4.35%	7.71%	11.56%
48	4.86%	7.29%	2.93%	4.40%	7.79%	11.69%
49	4.91%	7.36%	2.96%	4.44%	7.87%	11.80%
50	4.96%	7.44%	2.99%	4.49%	7.95%	11.93%
51	5.02%	7.53%	3.03%	4.54%	8.05%	12.07%
52	5.07%	7.61%	3.06%	4.59%	8.13%	12.20%
53	5.13%	7.70%	3.09%	4.64%	8.22%	12.34%
54	5.19%	7.79%	3.13%	4.70%	8.32%	12.49%
55	5.24%	7.86%	3.16%	4.74%	8.40%	12.60%
56	5.29%	7.94%	3.19%	4.79%	8.48%	12.73%
57	5.36%	8.04%	3.23%	4.85%	8.59%	12.89%
58	5.44%	8.16%	3.28%	4.92%	8.72%	13.08%
59	5.45%	8.18%	3.29%	4.93%	8.74%	13.11%
60	5.45%	8.18%	3.29%	4.93%	8.74%	13.11%

**Calculated Under Recommended Assumptions** 

Interest:	7.90%
Inflation:	4.00%
COLA Loading:	60.29%
Mortality:	GAM 1994 (30% Male and 70% Female, with ages set forward one year)

Entry Age	Basic	COLA	Total
15	2.94%	1.62%	4.56%
16	2.91%	1.61%	4.52%
17	2.88%	1.59%	4.47%
18	2.85%	1.57%	4.42%
19	2.83%	1.56%	4.39%
20	2.81%	1.55%	4.36%
21	2.79%	1.54%	4.33%
22	2.78%	1.54%	4.32%
23	2.77%	1.53%	4.30%
24	2.77%	1.53%	4.30%
25	2.76%	1.53%	4.29%
26	2.76%	1.53%	4.29%
27	2.77%	1.53%	4.30%
28	2.77%	1.53%	4.30%
29	2.77%	1.53%	4.30%
30	2.78%	1.54%	4.32%
31	2.79%	1.54%	4.33%
32	2.80%	1.55%	4.35%
33	2.81%	1.55%	4.36%
34	2.82%	1.56%	4.38%
35	2.84%	1.57%	4.41%
36	2.86%	1.58%	4.44%
37	2.87%	1.59%	4.46%
38	2.89%	1.60%	4.49%
39	2.91%	1.61%	4.52%
40	2.93%	1.62%	4.55%
41	2.96%	1.64%	4.60%
42	2.99%	1.65%	4.64%
43	3.01%	1.66%	4.67%
44	3.04%	1.68%	4.72%

General Tier 2 Members' Contribution Rates for Members not receiving Benefits under 2% at 55 from the
December 31, 2003 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

۰.

Calculated Under Recommended Assumptions					
Entry Age	Basic	COLA	Total		
45	3.06%	1.69%	4.75%		
46	3.09%	1.71%	4.80%		
47	3.12%	1.72%	4.84%		
48	3.14%	1.74%	4.88%		
49	3.18%	1.76%	4.94%		
50	3.21%	1.77%	4.98%		
51	3.25%	1.80%	5.05%		
52	3.30%	1.82%	5.12%		
53	3.44%	1.90%	5.34%		
54	3.51%	1.94%	5.45%		
55	3.51%	1.94%	5.45%		
56	3.51%	1.94%	5.45%		
57	3.51%	1.94%	5.45%		
58	3.51%	1.94%	5.45%		
59	3.51%	1.94%	5.45%		
60	3.51%	1.94%	5.45%		
Interest: Inflation: COLA Loading: Mortality:	7.90% 4.00% 55.26% GAM 1994 (30% Male a	and 70% Female, with a	ges set forward one year		

General Tier 2 Members' Contribution Rates for Members not receiving Benefits under 2% at 55 from the December 31, 2003 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

### \* SEGAL

# General Tier 3 (Non-enhanced) Members' Contribution Rates for Members not receiving Benefits under 2% at 55 from the December 31, 2003 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

	Basic		CC	LA	Тс	otal
Entry Age	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$35(
15	5.17%	7.76%	1.94%	2.91%	7.11%	10.67%
16	5.12%	7.68%	1.92%	2.88%	7.04%	10.56%
17	5.07%	7.60%	1.90%	2.85%	6.97%	10.45%
18	5.02%	7.53%	1.89%	2.83%	6.91%	10.36%
19	4.98%	7.47%	1.87%	2.81%	6.85%	10.28%
20	4.95%	7.42%	1.86%	2.79%	6.81%	10.21%
21	4.92%	7.38%	1.85%	2.77%	6.77%	10.15%
22	4.89%	7.34%	1.84%	2.76%	6.73%	10.10%
23	4.88%	7.32%	1.83%	2.75%	6.71%	10.07%
24	4.87%	7.31%	1.83%	2.75%	6.70%	10.06%
25	4.87%	7.30%	1.83%	2.74%	6.70%	10.04%
26	4.87%	7.30%	1.83%	2.74%	6.70%	10.04%
27	4.87%	7.30%	1.83%	2.74%	6.70%	10.04%
28	4.87%	7.31%	1.83%	2.75%	6.70%	10.06%
29	4.88%	7.32%	1.83%	2.75%	6.71%	10.07%
30	4.89%	7.34%	1.84%	2.76%	6.73%	10.10%
31	4.91%	7.36%	1.84%	2.76%	6.75%	10.12%
32	4.93%	7.39%	1.85%	2.78%	6.78%	10.17%
33	4.95%	7.42%	1.86%	2.79%	6.81%	10.21%
34	4.97%	7.46%	1.87%	2.80%	6.84%	10.26%
35	5.00%	7.50%	1.88%	2.82%	6.88%	10.32%
36	5.03%	7.54%	1.89%	2.83%	6.92%	10.37%
37	5.06%	7.59%	1.90%	2.85%	6.96%	10.44%
38	5.09%	7.64%	1.91%	2.87%	7.00%	10.51%
39	5.13%	7.70%	1.93%	2.89%	7.06%	10.59%
40	5.17%	7.75%	1.94%	2.91%	7.11%	10.66%
41	5.21%	7.81%	1.95%	2.93%	7.16%	10.74%
42	5.25%	7.87%	1.97%	2.96%	7.22%	10.83%

**Calculated Under Recommended Assumptions** 

SECTION 4:

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General Tier 3 (Non-enhanced) Members' Contribution Rates for Members not receiving Benefits under 2% at 55 from the December 31, 2003 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

	Basic		CC	DLA	Total	
Entry Age	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$35(
43	5.29%	7.94%	1.99%	2.98%	7.28%	10.92%
44	5.35%	8.02%	2.01%	3.01%	7.36%	11.03%
45	5.39%	8.08%	2.02%	3.03%	7.41%	11.11%
46	5.44%	8.16%	2.04%	3.06%	7.48%	11.22%
47	5.49%	8.23%	2.06%	3.09%	7.55%	11.32%
48	5.55%	8.32%	2.08%	3.12%	7.63%	11.44%
49	5.59%	8.39%	2.10%	3.15%	7.69%	11.54%
50	5.65%	8.47%	2.12%	3.18%	7.77%	11.65%
51	5.72%	8.58%	2.15%	3.22%	7.87%	11.80%
52	5.78%	8.67%	2.17%	3.26%	7.95%	11.93%
53	5.83%	8.74%	2.19%	3.28%	8.02%	12.02%
54	5.85%	8.77%	2.19%	3.29%	8.04%	12.06%
55	5.85%	8.77%	2.19%	3.29%	8.04%	12.06%
56	5.85%	8.77%	2.19%	3.29%	8.04%	12.06%
57	5.85%	8.77%	2.19%	3.29%	8.04%	12.06%
58	5.85%	8.77%	2.19%	3.29%	8.04%	12.06%
59	5.85%	8.77%	2.19%	3.29%	8.04%	12.06%
60	5.85%	8.77%	2.19%	3.29%	8.04%	12.06%
nterest:	7.90%					
iflation:	4.00%					

**Calculated Under Recommended Assumptions** 

Inflation:4.00%COLA Loading:37.56%Mortality:GAM 199

GAM 1994 (30% Male and 70% Female, with ages set forward one year)

		Calculated Under Recommended Assumptions					
	Ba	isic	cc	)LA	Тс	otal	
Entry Age	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350	
15	4.39%	6.59%	2.14%	3.21%	6.53%	9.80%	
16	4.35%	6.53%	2.12%	3.18%	6.47%	9.71%	
17	4.31%	6.47%	2.10%	3.15%	6.41%	9.62%	
18	4.28%	6.42%	2.09%	3.13%	6.37%	9.55%	
19	4.25%	6.38%	2.07%	3.11%	6.32%	9.49%	
20	4.23%	6.35%	2.06%	3.09%	6.29%	9.44%	
21	4.21%	6.32%	2.05%	3.08%	6.26%	9.40%	
22	4.20%	6.30%	2.05%	3.07%	6.25%	9.37%	
23	4.19%	6.29%	2.05%	3.07%	6.24%	9.36%	
24	4.19%	6.28%	2.04%	3.06%	6.23%	9.34%	
25	4.19%	6.28%	2.04%	3.06%	6.23%	9.34%	
26	4.19%	6.28%	2.04%	3.06%	6.23%	9.34%	
27	4.19%	6.29%	2.05%	3.07%	6.24%	9.36%	
28	4.21%	6.31%	2.05%	3.08%	6.26%	9.39%	
29	4.21%	6.32%	2.05%	3.08%	6.26%	9.40%	
30	4.23%	6.34%	2.06%	3.09%	6.29%	9.43%	
31	4.25%	6.37%	2.07%	3.10%	6.32%	9.47%	
32	4.27%	6.40%	2.08%	3.12%	6.35%	9.52%	
33	4.29%	6.43%	2.09%	3.13%	6.38%	9.56%	
34	4.31%	6.47%	2.10%	3.15%	6.41%	9.62%	
35	4.34%	6.51%	2.11%	3.17%	6.45%	9.68%	
36	4.37%	6.55%	2.13%	3.19%	6.50%	9.74%	
37	4.40%	6.60%	2.15%	3.22%	6.55%	9.82%	
38	4.43%	6.65%	2.16%	3.24%	6.59%	9.89%	
39	4.47%	6.70%	2.18%	3.27%	6.65%	9.97%	

General Tier 3 (Enhanced) Members' Contribution Rates for Members receiving Benefits under 2% at 55 from the December 31, 2003 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

### \* SEGAL

#### SECTION 4: Reporting Information for the Contra Costa County Employees' Retirement Association

## General Tier 3 (Enhanced) Members' Contribution Rates for Members receiving Benefits under 2% at 55 from the December 31, 2003 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

	Bas	sic	CC	LA	Total	
Entry Age	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$35(
40	4.50%	6.75%	2.19%	3.29%	6.69%	10.04%
41	4.54%	6.81%	2.21%	3.32%	6.75%	10.13%
42	4.58%	6.87%	2.23%	3.35%	6.81%	10.22%
43	4.63%	6.94%	2.25%	3.38%	6.88%	10.32%
44	4.67%	7.00%	2.27%	3.41%	6.94%	10.41%
45	4.71%	7.07%	2.30%	3.45%	7.01%	10.52%
46	4.76%	7.14%	2.32%	3.48%	7.08%	10.62%
47	4.81%	7.21%	2.34%	3.51%	7.15%	10.72%
48	4.86%	7.29%	2.37%	3.55%	7.23%	10.84%
49	4.91%	7.36%	2.39%	3.59%	7.30%	10.95%
50	4.96%	7.44%	2.42%	3.63%	7.38%	11.07%
51	5.02%	7.53%	2.45%	3.67%	7.47%	11.20%
52	5.07%	7.61%	2.47%	3.71%	7.54%	11.32%
53	5.13%	7.70%	2.50%	3.75%	7.63%	11.45%
54	5.19%	7.79%	2.53%	3.80%	7.72%	11.59%
55	5.24%	7.86%	2.55%	3.83%	7.79%	11.69%
56	5.29%	7.94%	2.58%	3.87%	7.87%	11.81%
57	5.36%	8.04%	2.61%	3.92%	7.97%	11.96%
58	5.44%	8.16%	2.65%	3.98%	8.09%	12.14%
59	5.45%	8.18%	2.66%	3.99%	8.11%	12.17%
60	5.45%	8.18%	2.66%	3.99%	8.11%	12.17%
terest:	7.90%					
flation:	4.00%					
OLA Loading:	48.74%					
lortality:	GAM 1994	(30% Male and 70	% Female, with age	es set forward one v	ear)	

**Calculated Under Recommended Assumptions** 

Entry Age	Basic	COLA	Total
15	9.44%	5.22%	14.66%
16	9.44%	5.22%	14.66%
17	9.44%	5.22%	14.66%
18	9.44%	5.22%	14.66%
19	9.44%	5.22%	14.66%
20	9.44%	5.22%	14.66%
21	9.37%	5.18%	14.55%
22	9.31%	5.14%	14.45%
23	9.25%	5.11%	14.36%
24	9.21%	5.09%	14.30%
25	9.18%	5.07%	14.25%
26	9.16%	5.06%	14.22%
27	9.15%	5.06%	14.21%
28	9.15%	5.06%	14.21%
29	9.16%	5.06%	14.22%
30	9.19%	5.08%	14.27%
31	9.22%	5.09%	14.31%
32	9.27%	5.12%	14.39%
33	9.32%	5.15%	14.47%
34	9.38%	5.18%	14.56%
35	9.45%	5.22%	14.67%
36	9.51%	5.26%	14.77%
37	9.59%	5.30%	14.89%
38	9.67%	5.34%	15.01%
39	9.75%	5.39%	15.14%
40	9.84%	5.44%	15.28%
41	9.92%	5.48%	15.40%
42	10.02%	5.54%	15.56%
43	10.12%	5.59%	15.71%
44	10.22%	5.65%	15.87%

Safety (Non-enhanced) Members' Contribution Rates for Members not receiving Benefits under 3% at 50 from the December 31, 2003 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

### \*segal





Entry Age	Basic	COLA	Total
45	10.34%	5.71%	16.05%
46	10.45%	5.77%	16.22%
47	10.52%	5.81%	16.33%
48	10.64%	5.88%	16.52%
49	10.93%	6.04%	16.97%
50	10.93%	6.04%	16.97%
51	10.93%	6.04%	16.97%
52	10.93%	6.04%	16.97%
53	10.93%	6.04%	16.97%
54	10.93%	6.04%	16.97%
55	10.93%	6.04%	16.97%
56	10.93%	6.04%	16.97%
57	10.93%	6.04%	16.97%
58	10.93%	6.04%	16.97%
59	10.93%	6.04%	16.97%
60	10.93%	6.04%	16.97%

Safety (Non-enhanced) Members' Contribution Rates for Members not receiving Benefits under 3% at 50 from the December 31, 2003 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Reporting Information for the Contra Costa County Employees' Retirement Association

Interest:	7.90%
Inflation:	4.00%
COLA Loading:	55.26%
Mortality:	GAM 1994 (85% Male and 15% Female, with ages set forward two years)

**SECTION 4:** 

Entry Age	Basic	COLA	Total
15	9.44%	6.88%	16.32%
16	9.44%	6.88%	16.32%
17	9.44%	6.88%	16.32%
18	9.44%	6.88%	16.32%
19	9.44%	6.88%	16.32%
20	9.44%	6.88%	16.32%
21	9.37%	6.83%	16.20%
22	9.31%	6.78%	16.09%
23	9.25%	6.74%	15.99%
24	9.21%	6.71%	15.92%
25	9.18%	6.69%	15.87%
26	9.16%	6.67%	15.83%
27	9.15%	6.67%	15.82%
28	9.15%	6.67%	15.82%
29	9.16%	6.67%	15.83%
30	9.19%	6.69%	15.88%
31	9.22%	6.72%	15.94%
32	9.27%	6.75%	16.02%
33	9.32%	6.79%	16.11%
34	9.38%	6.83%	16.21%
35	9.45%	6.88%	16.33%
36	9.51%	6.93%	16.44%
37	9.59%	6.99%	16.58%
38	9.67%	7.04%	16.71%
39	9.75%	7.10%	16.85%
40	9.84%	7.17%	17.01%
41	9.92%	7.23%	17.15%
42	10.02%	7.30%	17.32%
43	10.12%	7.37%	17.49%
44	10.22%	7.45%	17.67%

Safety (Enhanced) Members' Contribution Rates for Members receiving Benefits under 3% at 50 from the December 31, 2003 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

## \*segal

	Entry Age	Basic	COLA	Total
	45	10.34%	7.53%	17.87%
	46	10.45%	7.61%	18.06%
	47	10.52%	7.66%	18.18%
	48	10.64%	7.75%	18.39%
	49	10.93%	7.96%	18.89%
	50	10.93%	7.96%	18.89%
	51	10.93%	7.96%	18.89%
	52	10.93%	7.96%	18.89%
	53	10.93%	7.96%	18.89%
	54	10.93%	7.96%	18.89%
	55	10.93%	7.96%	18.89%
	56	10.93%	7.96%	18.89%
	57	10.93%	7.96%	18.89%
	58	10.93%	7.96%	18.89%
	59	10.93%	7.96%	18.89%
	60	10.93%	7.96%	18.89%
	7.90%			
	4.00%			
ıg:	72.85%			

Safety (Enhanced) Members' Contribution Rates for Members receiving Benefits under 3% at 50 from the December 31, 2003 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Interest:	7.90%
Inflation:	4.00%
COLA Loading:	72.85%
Mortality:	GAM 1994 (85% Male and 15% Female, with ages set forward two years)

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